

New Indian Antiquary

A monthly Journal of Oriental Research in Archaeology,
Art, Epigraphy, Ethnology, Folklore, Geography, History,
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NOTES OF THE MONTH

With the publication of the present issue the *New Indian Antiquary* will be completing the 7th year of its existence. The credit of keeping this plant of Indology alive goes as much to our subscribers as to the Publishers, who have carried the whole burden of its financial responsibilities during the last six years in the expectation of better days for this venture. We are grateful to our subscribers and contributors for their sincere cooperation in this sacred work in the cause of Indology. The Editors and Publishers are fully conscious of the loss to Indology occasioned by the reduced pagination of the journal during the last two years consequent upon the excessive cost of publication and the Government paper control order. We fully trust, however, that our patrons will not forsake us in the middle of our venture but on the contrary persuade their friends to patronize this venture carried on through thick and thin of economic hardships caused by the war conditions. As soon as the present conditions improve we intend to effect a gradual increase in the pagination of the monthly issues of the *New Indian Antiquary*. We convey our grateful thanks to our readers and patrons for their good offices in continuing their support to this only monthly journal devoted to research in Indology conducted without a break during the most distressing period of six unprecedented years in the cultural history of the world. We hope to establish contact in the near future with brother Indologists in the war-stricken nations outside India and feel confident that their renewed contact with us cannot but give an added impetus to our humble efforts to provide an international clearing house for the exchange of ideas through the pages of the *New Indian Antiquary*. May we hope that this renewed contact with our intellectual brethren outside India will bring about an emergent evolution, if not a revolution, in the cultural values of Indian Civilization, ancient and modern?

THE SECOND GUJARAT PREHISTORIC EXPEDITION : A PRELIMINARY ACCOUNT OF THE SEARCH OF "MICROLITHIC MAN IN GUJARAT"

By

H. D. SANKALIA & I. KARVÉ, Poona.

[The work of the First Gujarat Expedition (1941-42) revealed the fact that notices of palæolithic and microlithic cultures left by Bruce FOOTE 50 years ago were worth following up. The survey of the Sabarmati Valley brought to light a number of new palæolithic sites and a rich stone industry of the period. The trial diggings at two microlithic sites—Hirpura and Langhnaj—yielded not only a rich microlithic industry, but a micro-bone industry also, and fossilized remains of mammalian-long-bones. The finds at Langhnaj, Mound II, Pit I, were especially striking. So an extensive excavation of this mound was recommended by me in the weekly report. But as there was no time then this idea was given up.

Laboratory studies of the bone finds by my colleague Dr. Mrs. I. KARVÉ and Prof. A. H. KHAN testified to the existence of several mammals—sheep, goat, cow, large buffalo, unidentified birds, and rodents—whose bones the microlithic people used first for food and then for preparing tools out of the remains. Both Mrs. KARVÉ and I were anxious to find out who these people were.

An extensive excavation at Langhnaj was suggested by me, (as soon as I completed the report of the First Expedition and sent it to the Press), to Rao Bahadur K. N. DIKSHIT, the Director-General of Archaeology in India. He welcomed the suggestion and obtained permission to excavate at Langhnaj from the enlightened and liberal-minded Dewan of Baroda State, Sir V. T. KRISHNAMACHARIAR. The Dewan Sahab also offered us full facilities and I take this opportunity of thanking him as well as the following officers : The Suba, the Vahivatdar and the Executive Engineer of Mehsana ; the Talati and Patel and Dr. VADEKAR of Langhnaj for making our work successful. As last year I was assisted by Mr. DEVI DAYAL, the head photographer of the Archaeological Survey of India ; SADAR DIN, the Exploration Jamadar, and Mr. Girdharilal, the surveyor-draftsman. Of invaluable help was Dr. M. G. DIKSHIT, the assistant curator who had joined me to learn the excavation work, soon picked it up and helped me in every way. Dr. Mrs. KARVÉ shared with me in planning and executing the various excavations. I cannot adequately express my gratefulness to her for her collaboration and help in every way. To Rao Bahadur K. N. DIKSHIT and to Dr. S. M. KATRE, the Director of the Deccan College Research Institute I am grateful for their keen interest and assistance in our work ; to the University of Bombay for a research grant ; to Mr. M. C. TRIVEDI, the Manager of the Govt. Photo Registry Office, Poona for supplying prints from my negatives at a very short notice. *H.D.S.*]

Langhnaj, a small prosperous village in the Mehsana Taluka, Mehsana Prant, Baroda State, Northern Gujarat, has a number of small loessic mounds, called locally *ṭimbās*. There is one mound about half-a-mile to the east of the railway station, which is now cut by the road going to the village. On the right of it stands the P. W. D. Rest House, the most convenient place for carrying on work at Langhnaj. A trial pit was dug on the left half of this mound, called then Mound I, in 1942. To the east of this—Rest House Mound—, across the small shallow inundation lake, is another mound, perhaps the largest in area of the

mounds at this place.¹ Then it was called Mound II, and two trial pits were sunk on it near its western end. Two smaller mounds lie to the south of the above mound leaving a couple of fields in between.

Locally Mound I of 1942 is known as Rāwalia-no Ṭimbo, (because Rāwalias, a sub-caste of the Hindus are buried there): Mound II as Andhārio Ṭimbo, (since it had till very recently thick brushwoods and other thickets and was consequently dark); the first of the southern mounds may be called the Thrashing Mound as corn is thrashed on its top in the centre; the second of this group as Charuno-Ṭimbo, as it is used for grazing.

Near the lake itself is a very small mound, which may be called the Lake Mound.

We spent the first two days in the surface examination of these mounds. As during the previous season, the Andhārio Ṭimbo yielded the best and the largest amount of microliths, while the Charuno Ṭimbo, the mound farthest away from the lake did not yield any.

Taking into consideration the variety of finds—microliths, micro-bone tools and a large amount of long bones of mammals found during the trial diggings of 1942 at the Andhārio Ṭimbo and the result of the surface exploration this year, it was decided to dig extensively this mound. Being the first mound of the season, it was called Mound I.

After clearing away the top of the mound, about 200 feet from east to west and about 110 feet from north to south, of brushwood etc.² excavation was started at the western end of the mound. Here a large pit 20 feet by 10 feet was laid out immediately to the north of Pit I of 1942. For in the northern wall of the latter a large fossilized bone of cattle was found at 4 feet from surface. It was probable therefore that other remains of this animal and of others and of the men who fractured animals' bones might be lying near about. Our surmise was not far too wrong. On reaching this level we found a number of large fossilized bones, besides a number of large cores, beautiful flake blades, and a few bone tools larger than those found in 1942, a small tubular bone bead, a perfect, round bead of stone, perhaps a spacer(?), three bead-like punctured pieces. Both the micros and bone splinters began to decrease in quantity after 5 feet, and disappeared completely at 6 feet. The colour of soil had become lighter at 4 feet and its texture more coarse. When the virgin soil was reached after 6 feet, nothing but kankar was noticed in it. Its these characteristics were retained even when we had dug this pit upto 20 feet. The discovery of beads was a distinct addition to our knowledge of the microlithic culture gained during this season.

Satisfactory as this progress was, we were a little disappointed in not finding a skeleton or a skull of a large animal or man. And we had taken nearly 6 days in digging 5 feet of the pit, recording in detail each find as it came out, and noting not only its depth from the surface, but in case of all important finds their position from the nearest pegs in which we had divided the whole area. Thus three measurements—length, and width from the nearest numbered peg, and depth from the datum level—were taken, and shown duly on a graph.

Even after reaching virgin soil, with a view to study the formation of the mound by soil-analysis, this pit was dug up to 20 feet. While this work was proceeding slowly, we switched on to the top of the mound. A long trench 60 feet by 6 feet from east to west was laid out, divided into sections and digging was begun in Section I (20 feet by 6 feet), covering almost the topmost, central portion of the mound. The section was divided into four rectangles, each 6 feet

1. See Fig. 1.

2. See Fig. 2.

by 5 feet. The topmost 3 feet yielded so few finds that freshers amongst us were beginning to feel disappointed. On reaching the 4 foot level, however, the things changed. Micros, bone splinters, large bone remains, began to come out in such numbers and with such rapidity that a single person found it difficult to manage a rectangle. For all the larger remains, particularly bone, had to be most carefully extracted, photographed *in situ* and shown on a graph. But our disappointment knew no bound, when after all this trouble and precaution, the object extracted turned out to be no more than a pebble of sandstone or quartzite. And owing to silty calcareous encrustation and fossilization it was at first sight difficult to distinguish between a bone and a pebble.

The finds from this section both in quantity and quality were similar to those found from Pit I. The main addition being a few bone pieces which looked like barbs of harpoon, a true microlithic awl, and a small borer with a curved point, perhaps for drilling holes in beads.

When digging in Section I was about to be completed, further digging in Section II of the trench was begun. This was 25 in length and lay to the west or left of Section I, leaving a space of 5 feet. The digging here was begun almost simultaneously with that in Section I. But as the earlier levels in the latter were yielding few finds, the digging in Section II was given up, thinking the central portion of the mound barren. Subsequent results from Section I proved otherwise. Moreover one more chance was to be taken with a view to locating the skeletons of the microlithic people, if these were left at all!

As in Section I, from the first three feet, nothing but pieces of modern pottery, humus soiled tiny bone splinters and very few micros came out. The only notable find was an almost complete earthen jar. It was found at about 2 feet in the northern wall of rectangle 5, near Peg 11A., and was lying on its side. The texture of its clay and its make indicate that it is a modern pot. Such potsherds disappeared from about 3 feet. The only pottery which seems to be a part of the microlithic culture or its later phase, is a soft yellowish handmade pottery with a smoky core. In spite of the dearth of finds and the occurrence of such modern looking finds we were not disappointed. "The real exciting levels," as we told each other, "are always after 4 feet." Section II did not prove an exception to this observed fact. Large cores of quartz, chalcedony and chert, some of them largest so far found in Gujarat; long blades, one of them the longest of the hitherto found blades began to come out when we dug at the 4th foot. Along with these also came hammerstones, two large pieces of a quern, a beautiful round pestle, and large pebbles of rough sandstone. We were pleased to get evidence of the use by microlithic people of this "paleolithic" raw material—viz. quartzite. Fossilized, heavily encrusted mammalian remains were always there at this level. As always a portion of the find came to light, the rounded, parts of the bone remains and the encrusted sandstone pebbles were difficult to distinguish from each other and often deceived us. "

It was this frequent experience that was responsible for not allowing us to photograph *in situ* our first find of a human skull. At 4 feet 9 inches from datum level in rectangle 2 of Section II (or 7 of the trench), about 3 feet from Peg 7 towards Peg 8, and 2 feet inside the rectangle from Peg 7 a small patch of a flat, slightly rounded object was noticed. Without digging around it could not be removed intact. Just when it was sighted, and one of us started cleaning it, Mr. DEVI DAYAL, the official photographer was there. But as we did not wish to waste our films or plates, one of us told Mr. DEVI DAYAL, "I would not trouble you to photograph this—it may just be a stone for all we know." Further cleaning showed that it was perhaps a large pebble, broken partially into two. Or was it a skull? Nothing could be said, because the surface of the object was encrusted

and stone-like. The only way to know what it was, was to remove it completely.³ This was done. On cutting away the earth emerged the side of the face, which so far had remained hidden. Before cleaning it completely, different views of the skull⁴ were taken on the field, as well of the actual place whence it was removed. It is in a partially battered condition; from the jaw it appears to be the skull of an old individual, as some of the molars have fallen out during the life-time of the individual.

Excitement really ran high at the moment. Our spirits were revived. We were extra careful, and were sorry for not photographing the skull *in situ*. These precautions were soon rewarded. To the left of the skull at a distance of 2 feet and a half, in the northern wall of rectangle 7 long bones were exposed.⁵ It certainly looked like a skeleton with the arms and legs pointing to the west, and the head, which emerged a little later facing east. In order that the position of the bones may not be disturbed, a thin coating of paraffin wax given to the exposed parts. The entire body was then undercut first by a fine excavation knife and then by a strong string, and the whole body together with its "pre-historic packing of loessic sand" was taken out and removed on a camp-cot to the camp. On cleaning it was found that the skeleton was not complete. The skull having a deep cut(?)⁶ reaching from the left eye-hole almost to the middle of the forehead, with its upper jaw smashed and displaced, was separately placed along with the hands and feet, arms and legs and some parts of the vertebræ, whereas the ribs etc. were missing. This suggests a partial burial.

It was now imperative to dig in the direction of the skeleton, to see if some more skeletons were buried thither, to see if in fact we had struck upon a micro-lithic cemetery.

The northern walls of rectangles 6, 7, 8 were cut open and a small pit or trench, called Extension A, 6 feet (east and west), 10 feet (north and south), was laid at right angles to the main trench. On the clearance of the upper 4 feet or so another skeleton and a skeleton of a dog, (or a dog-like animal) were exposed.⁷ This was the first complete mammalian skeleton found. About 2 feet away from this was found a human skeleton. As in the case of the first skeleton this also revealed a partial burial. Just below the skull the two bones of the upper arm were placed and then the two bones each of the lower arm crossed one over the other. The knees were raised and the lower legs flexed in such a manner that the feet lay crossed below the buttocks.⁸

We were glad, much too glad on getting three skeletons within a week, but prayed for no more at the moment. For it took a long time to extricate finds like these, and we wanted to close the work for the season, owing to several unforeseen reasons. The chief reason was that the heat suddenly became unbearable, and one of us (H.D.S.) was down with a severe attack of diarrhœa, while the other got an urgent call to attend to some work at Poona.

On completing the diggings we had started to the east of Section I with a view to testing whether this portion of the mound was occupied during the micro-lithic period, we were compelled to close the work for the season at this important juncture. The first section to the east of Section I was 15 feet away from the first. It was 20 feet in length and was called Section O. It was not much fruitful, but gave us a beautiful blade of white carnelian. As before microliths, bone splinters and large pebbles were found in greater quantity below 3 feet, but in this section particularly at about 5 feet.

3. See Fig. 3.

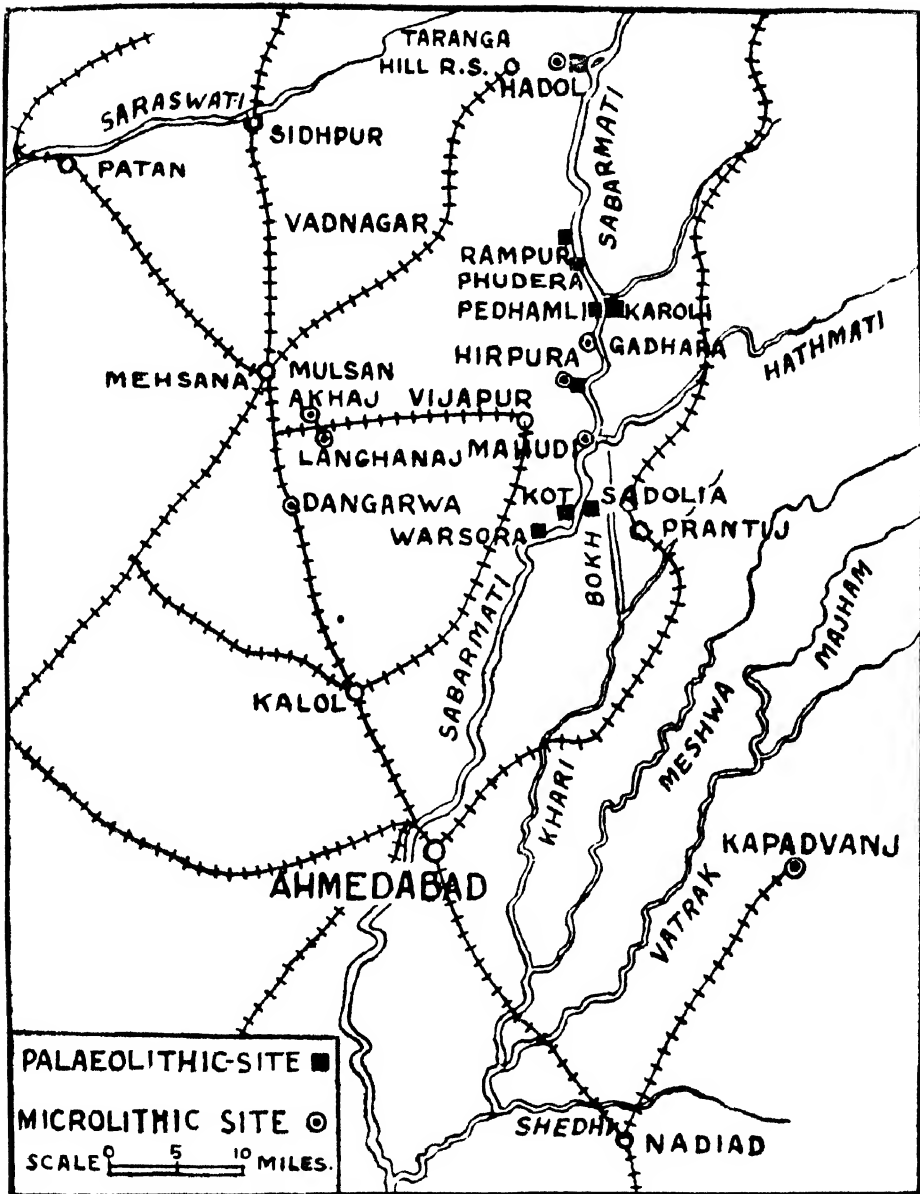
5. See Fig. 5.

7. See Fig. 7.

4. See Fig. 4, a, b, c.

6. See Fig. 6.

8. See Fig. 8.



A MAP showing the position of LANGHANAJ among the prehistoric sites in Northern Gujarat. (This map was first published by the writer (H.D.S.) in the *Journal of the Gujarat Research Society*. It is here reproduced with permission of the Society).

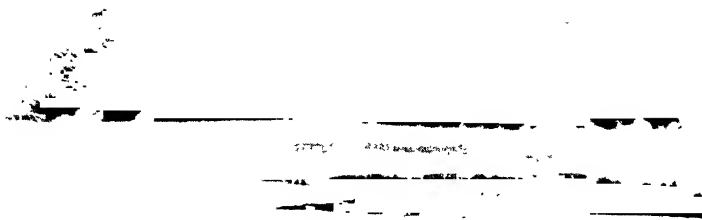


Fig. 1.

The western side of Mound I (Andhario Timbo) from the gateway of the Amba Temple with the inundation lake in front.



Fig. 2.

Mound I before clearance from the east with the white housetops of the village in the west.



Fig. 3.

First Skull with its original sand packing, immediately
after removal from *situ*



Fig. 4 (a).

(a) Back view, First skull, after partial cleaning.

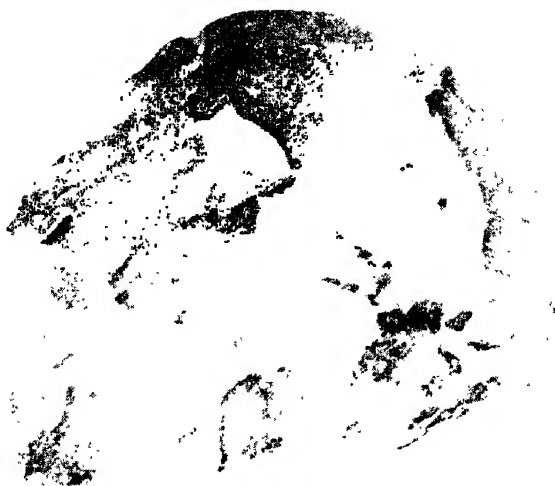


Fig. 4 (b).

(b) Sideview, First skull, after partial cleaning.



Fig. 4 (c).

Sideview, First skull, after partial cleaning.



Fig. 5.

Skeleton I in the northern wall of rectangle 7. The half of pebble indicates the position of the First Skull.



Fig. 6.

Skull of skeleton I with a deep cut on the forehead and displaced upper jaw.



Fig. 7.
Skeleton II *in situ* in the extension of rectangles 6, 7.



Fig. 8.
Skeleton II before complete cleaning.

The second eastern section, called Section E, was dug at a distance of about 70 feet from Section O, on the lower ridge of the mound. Very few micros and bone splinters were found from this section.

Earlier we had also dug at the first southern mound, called Mound II, where surface microliths were found and also on the Lake Mound, with a view to knowing how far from and near the lake did the microlithic people live, and whether the Lake Mound was originally surrounded with water as the local belief was. Trial diggings at Mound II showed that it too was occupied by the microlithic people and this period of occupation coincided with the 4 foot "layer." For it was at this depth that fossilized mammalian bones and large pieces of yellowish handmade pottery, besides microliths were found.

The Lake Mound proved fruitful only after the first 3 feet, though the finds were comparatively few, and the digging through hard muddy soil extremely difficult.

These three weeks work at Langhnaj had definitely advanced our knowledge of the microlithic culture in Gujarat. Larger and more varied microliths, including a true awl, and a "bead-borer" with a curved point; larger bone tools, including probably barbs of harpoon; two types of beads, one tubular of bone, and the other round, probably of stone, perhaps used as spacers, and several small pieces with hollows either on one or both sides suggesting attempts to prepare a bead; besides a large amount of fossilized mammalian remains, usually long bones, a large amount of small vertebræ, skeletons of lizard-like animals, jaws of rodents, a few long bones of birds were discovered. But the most important discovery was that of three incomplete skeletons, including skulls, suggesting a partial burial.

Have we really discovered the makers of this culture, viz., the microlithic people? The available evidence tends to show that we have. First, the three skulls and the remains of two skeletons were found at the real microlithic level viz., 4 feet from the surface; secondly in association with microliths and fossilized mammalian remains. Thirdly, like the latter the former are fossilized: to what extent we cannot say at present, unless the laboratory studies are complete. But like the bones of mammals, these skeletal remains are brownish like the soil in which they were buried, heavy, and stick on the tongue as fossil bones do, because they have begun to lose or lost their calcium content. Of course they are not completely petrified, otherwise they would ring like porcelain, and be black; however they do give a slightly metallic sound.

It appears that this is the first discovery of its kind in India, and hence we have no evidence from this country with which we can compare our data. At Mohenjodaro,⁹ Harappa,¹⁰ and Nal¹¹ and elsewhere in north-western India¹² skeletal remains have been found, but owing to the nature of the soil, the remains in the first two places are all said to be in a very fragile condition; at the places in north-western India, where STEIN found several cairn burials, the bones are said to have been calcined by fire, but nothing is said about the fossilization of the remains. Hence, in the absence of first-hand study nothing definite can be said about the skeletal remains of this supposed prehistoric periods. Nor is much

9. MARSHALL. *Mohenjodaro and the Indus Valley Civilisation*, Vol. II.

10. VATS, *Harappa*.

11. HARGRIEVES, MASI. No. 35.

12. STEIN, *An Archaeological Tour in Waziristan and Northern Baluchistan* MASI. No. 37; and *An Archaeological Tour in Gedrosia*, MASI, No. 43.

The Appendix by SEWELL and GUHA describes two skulls, which were crushed, and the upper jaws of which were displaced. Large rounded fine grained sandstone pebbles were found along with the skeletal remains.

known about the skeleton found by HUNTER¹³ in the Mahadeo Hills at Panchmarhi in the Central Provinces. Recently some skeletons were unearthed in the Gwalior State.¹⁴ They seem to be well-preserved, but it is not known if they are fossilized.

From the European material, *available to us at present*, it is tempting to compare our evidence with the surroundings and the state in which the "loess man," supposed to belong to the later palaeolithic period or just after this period was found. Thus, for example, WEINERT¹⁵ describes a partial burial uncovered at Schmöckwitz, near Berlin in 1925-26. His description could have been applied, almost verbatim, to the Gujarat finds. The following points, among others, are worth noting :

(1) The Schmöckwitz skeleton is also a partial burial : the long bones lay flexed together with the skull placed at the top and without the vertebral column or ribs.

(2) The burial was in a level full of microliths (*Mesolithische kleinindustrie*).

(3) The material culture belonged to a period which can be designated as the end of the palaeolithic or the dawn of the neolithic ;

(4) The human form of the phase which immediately preceded this and which is continuous with this is called *Homo sapiens Fossilis* or the *Löss Mensch*.

(5) This find and others of the same kind do not show any traces of the rich art of the Aurignac Man.

(6) These skeletons were found in red ochre, while no such things accompanied the Gujarat finds, though pieces of red and yellow ochre were found in very small quantities.

Determination of the degree of fossilization of the bone finds in India under different climatic and geologic conditions might give a relative chronological date of the various finds. This and the detailed study of our this season's finds followed up by further excavations at Langhnaj and other microlithic sites might give a true idea of the microlithic age in Gujarat and its relation to the palaeolithic.

13. *Nagpur University Journal*, Vol. I, 1935 ; No. 2, 1936.

14. *Annual Administration Report, Archaeological Dept., Gwalior State, Gwalior*, 1940, p. 16.

15. WEINERT, *Menschen der Vorzeit*, (Berlin 1930) pp. 124-25.

THE PROBLEM OF MICRONOTES IN INDIAN MUSIC

By

A. C. PANDEYA, Agra.

Indian music recognizes the existence of micronotes, minute and delicate shades of sound. It terms these *Śruties*. This subject has been the topic of much discussion for the last more than a score of years. Varied theories have been advanced by eminent scholars about their division. One school of thought believes in their equal division, while another in unequal division. The former school of thought is captained by the late Pandit Vishnu Narain BHATKHANDÉ whose views are subscribed to by scholars like His Highness Maharana Shree Vijayadevi of Dharampur State and others. The other school of thought consists of some eminent exponents of Indian music, like the Rev. POPLEY, Prof. ACHREKER, Rai Bahadur Bishan SWAROOP, DEVAL, and others. I belong to this group.

The upholders of BHATKHANDÉ'S theory, like him, fail to examine the great principle of sound that the frequency of notes varies in accordance with the variance in the pitch of those notes.

Ancient authorities give the following table of twenty-two *Śruties* with vibrations (in frequency):

Śruti No.	Name of Śruti	Note.	Vibration Frequency	Technical Name.
1	<i>Tivṛā</i>	..	$252^{68}/_{81}$	Usual (<i>Suddha</i>)
2	<i>Kumudvatī</i>	..	$253^{1}/_{3}$	Flatter (<i>Ati-Kōmal</i>)
	"	..	256	Flat (<i>Kōmal</i>)
3	<i>Maṇḍā</i>	..	$266^{2}/_{3}$	Sharp
4	<i>Chandōvatī</i>	Sa	270	(<i>Tivṛā</i>) Sharper
5	<i>Dayāvati</i>	..	$284^{4}/_{9}$	(<i>Tivṛatara</i>) More Flat
6	<i>Rañjanī</i>	..	288	Flat
7	<i>Raktikā</i>	Ri	300	Sharp
	"	..	$303^{17}/_{27}$	Sharper
8	<i>Raudrī</i>	..	$303^{1}/_{4}$	..
9	<i>Krōdhī</i>	Ga	320	Flat
10	<i>Vajrikā</i>	..	324	..
11	<i>Prasārī</i>	..	$337^{1}/_{2}$	Sharp
	"	..	$341^{1}/_{3}$	Sharper
12	<i>Prīti</i>	..	355	..
13	<i>Marjanī</i>	Ma	360	Sharp
14	<i>Kṣitī</i>	..	$379^{7}/_{27}$	..
15	<i>Raktā</i>	..	$379^{11}/_{16}$	More Flat
	"	..	384	Flat
16	<i>Saṁdīpanī</i>	..	400	Sharp
17	<i>Alāpini</i>	Pa	405	Sharper
18	<i>Madantī</i>	..	$426^{1}/_{3}$	More Flat
19	<i>Rōhinī</i>	Dha	432	Flat
20	<i>Rāmyā</i>	..	450	Sharp
	"	..	$455^{1}/_{9}$	Sharper
21	<i>Ugrā</i>	..	$(455^{1}/_{9})$	..
22	<i>Kṣōbhini</i>	Ni	480	Sharp.

From the above table the following is clear :

Sa, Ma and Pa have four *Śruties* each ;

Ri and *Dha* have three *Śruties* each ;

Ga and *Ni* have two *Śruties* each.

Having established the existence of these *Śruties*, Bharata mentions the methods to produce these on the flute. On the *Viṇā* these can be verified by the process known as *Sāraṇa Catuṣṭayi* by which he established the tonal values of the intervals resulting in between the *Śruties* and thereby verified the notes and difference between the tunings of the *Śaḍja Grāma* and the *Madhyama Grāma*.

SĀRAṆA CATUṢṬAYĪ.

Bharata mentions :

"Take two *Viṇās* with similar wires, frets and bodies and tune them according to the *Śaḍja Grāma*.¹ As is done sharper in the case of *Madhyama Grāma*¹ tuning, if the tension of the speaking wire of one of the *Viṇās*, say A, is reduced by one *Śruti* the *Pañcama* of the *Viṇā* will be lower by one *Śruti* than the *Pañcama* of the *Viṇā* say B. On again lowering the tension of *Viṇā* A by one *Śruti* *Ga* and *Ni* of that *Viṇā* will correspond with *Ri* and *Dha* of *Viṇā* B, because there is two *Śruti*-interval between *Ga* and *Ri* and *Ni* and *Dha*. On further reducing the tension by one *Śruti* *Dha* and *Ri* of *Viṇā* A will correspond with *Pa* and *Sa* of *Viṇā* B because there is three *Śruti*-interval between *Dha* and *Pa* and *Ri* and *Sa*. Similarly by once more lowering the tension by one *Śruti* *Pa* *Ma* and *Sa* of *Viṇā* A will correspond with *Ma*, *Ga* and *Ni* of *Viṇā* B because there is a four *Śruti*-interval between each of these notes respectively.

Tabulating the above explanation, the following chart is made :

Śruti No.	Order of notes in Viṇā B.	Result of lower of Tension in Viṇā A by :			
		One Śruti.	Two Śruties	Three Śruties	Four Śruties
1	..	..	..	Sa	..
2	..	..	Sa	..	..
3	..	Sa	..	..	Ri
4	Sa	..	..	Ri	..
5	..	..	Ri	..	Ga
6	..	Ri	..	Ga	..
7	Ri	..	Ga	..	..
8	..	Ga	..	..	..
9	Ga	..	..	Ma	Ma
10	..	..	..	..	..
11	..	..	Ma	..	..
12	..	Ma	..	..	..
13	Ma	..	..	..	Pa
14	..	..	..	Pa	..
15	..	..	Pa	..	..
16	..	Pa	..	..	Dha
17	Pa	..	..	Dha	..
18	..	..	Dha	..	Ni
19	..	Dha	..	Ni	..
20	Dha	..	Ni	..	..
21	..	Ni	..	..	..
22	Ni	..	..	..	Sa

1. *Pañcama* in *Madhyama Grāma* is lower by one *Śruti* than that of *Śaḍja Grāma*.

In this way Bharata says that each of the notes *Sa*, *Ma* and *Pa* have four *Śruties*, *Ri* and *Dha* have three, and *Ga* and *Ni* two. This is established by *Nārada* and other later scholars. The existence of *Śruti* values has been demonstrated by *Sāraṅgadēva*. These values are employed in the verification of notes. For this purpose Bharata expounded the principles of consonance which he explained thus :

- (i) There are seven notes, viz., *Ṣaḍja*, *Rṣabha*, *Gandhāra*, *Madhyama*, *Pañcama*, *Dhaivata* and *Niṣāda*.
- (ii) These notes are of four kinds according to the number of *Śruties* falling in between them, viz., *Vādī* (the sounding note), *Samvādī* (Sonants), *Anuvādī* (Assonant) and *Vivādī* (dissonants).
- (iii) The *Aṁśa Swara*, or the principal note, is the same as the *Vādī*, and notes which fall at a distance of nine or 13 *Śruties* are Sonants to each other. In this way *Sa* and *Pa*, *Ri* and *Dha*, *Ga* and *Ni* and *Sa* and *Ma* are *Samvādies* in the *Ṣaḍja Grāma* (in which *Sa* is the tonic note), and in the *Madhyama Grāma* (where *Ma* is the tonic) *Sa* and *Pa* are not *Samvādies*, but computably *Pa* and *Ri* are Sonants.
- (iv) In *Vivādī Swaras* there is the distance of 20 *Śruties*. Thus *Ri* and *Ga*, and *Dha* and *Ni* are the dissonants.
- (v) Having thus established the *Vādī*, *Samvādī* and *Vivādī*, the remaining are *Anuvādī*. In the *Ṣaḍja Grāma* *Sa* has *Ri*, *Ga*, *Dha* and *Ni*; *Ri* has *Ma*, *Pa* and *Ni*; *Ga* has *Ma*, *Pa*, *Dha*; *Ma* has *Dha*, *Pa*, *Ni*; *Pa* has *Dha* and *Sa*; *Dha* has *Sa*, *Ma*, *Pa*. In the *Madhyama Grāma* computation may be made thus : “*Ma* has *Pa*, *Dha*, *Ni*; *Dha* has *Sa*, *Ri*, *Ga*; *Ni* has *Sa*, *Ri*, *Ga*.”

APPLICATION OF THE PRINCIPLES OF CONSONANCE :

In the above way applying the theory of consonance to the *Ṣaḍja Grāma* scale, Bharata determines the correctness of *Ni*, *Sa*, *Ga*, *Ma* and *Pa* notes and the *Madhyama Grāma* scale seems to fix *Ri* and *Dha*.

Seeming Fallacy : A contemporary² writes :

“Testing by these methods given by Bharata, little doubt is left in our mind that in the *Ṣaḍja Grāma* *Sa*, *Ma* and *Pa* have four *Śruties*, *Ri* and *Dha* have three *Śruties* and *Ga* and *Ni* have two *Śruties* and in the *Madhyama Grāma* *Pa* becomes three *Śruties* in consequence of which *Dha* becomes four *Śruties*.”

Every up-holder of the theory of equal division of *Śruties* has erred on this stage. Bharata has based his conception of the determination of notes on the *Ṣaḍja Grāma* with *Sa* as the tonic of the frequency of 270 units. A pitch of this (270) frequency is naturally produced in majority of throats.

My own research based on experiments has given me the following results :

“Having established with Bharata that the weight of the standard *Sa* in the *Ṣaḍja Grāma* is 270 frequencies in one *pal* (i.e. 24 seconds in the English standard time), take a *Vīṇā* of standard body and wires and tune it according to the *Ṣaḍja Grāma* so that *Sa* may be of 270 frequencies. It will be found that *Ri* will fall on a frequency of almost $18\frac{1}{9}$ units while mathematical calculation gives $18\frac{14}{27}$ units—an error of 0.02 per cent. This shows that the difference of frequency bet-

2. His Highness Maharana Shree VIJAYADEVJI of Dharampur.

3. Most of modern critics on *Śruties* think that pitch varies without variance in the frequency of the notes. This is totally an absurd physics. If the pitch varies, there is variance in frequency—higher the pitch greater the frequency and lower the pitch lesser the frequency. Volume of air affects the note on the string in the same way as the change in weather (which changes the density of atmosphere) affects the throat and brings about a variance however insignificant that may be.

ween two different notes is 34 units, while in the case of *Ṣaḍja Grāma* scale the difference is that of 30 units. Evidently, *we cannot say with any justification that only a two Śruti-interval exists in the second case between the two notes Sa and Ri* and hence the theory of equal division falls flat and is subject to severe criticism."

In his writing, nothing can be said why Bharata stressed only the *Ṣaḍja Grāma*, and left his writing in a manner to arouse steady confusion. And only Bharata can explain whether he meant to give the principal notion only and left the subsequent problems to be understood, deduced and illustrated by critics and men of art, or actually he drew some "dormant" conclusion!

Modern Time : In Western phraseology we call major, minor and semi-intervals to four, three and two *Śruti*-intervals, respectively. His Highness Maharana Shree VIJAYADEVJI Rana of Dharampur State draws his final result when *Ni* is taken as a starting point, that is, it is the tonic principal note of *Sa*, thus :

<i>Ṣaḍja Grāma Scale</i>		<i>Madhyama Grāma Scale</i>	
Name of Note	Musical Interval	Name of Note	Musical Interval
<i>Sa</i> <i>Re</i>	Four <i>Catus</i> -Major <i>Śruties</i>	<i>Sa</i> <i>Re</i>	Four <i>Catus</i> -Major <i>Śruties</i>
<i>Re</i> <i>Ga</i>	Three <i>Tri</i> -Minor <i>Śruties</i>	<i>Re</i> <i>Ga</i>	Three <i>Tri</i> -Minor <i>Śruties</i>
<i>Ga</i> <i>Ma</i>	Two <i>Dwi</i> -Semi <i>Śruties</i>	<i>Ga</i> <i>Ma</i>	Two <i>Dwi</i> -Semi <i>Śruties</i>
<i>Ma</i> <i>Pa</i>	Four <i>Catus</i> -Major <i>Śruties</i>	<i>Ma</i> <i>Pa</i>	Four <i>Catus</i> -Major <i>Śruties</i>
<i>Pa</i> <i>Dha</i>	Four <i>Catus</i> -Major <i>Śruties</i>	<i>Pa</i> <i>Dha</i>	Four <i>Catus</i> -Major <i>Śruties</i>
<i>Dha</i> <i>Ni</i>	Three <i>Tri</i> -Minor <i>Śruties</i>	<i>Dha</i> <i>Ni</i>	Three <i>Tri</i> -Minor <i>Śruties</i>
<i>Ni</i> <i>Sa</i>	Two <i>Dwi</i> -Semi <i>Śruties</i>	<i>Ni</i> <i>Sa</i>	Two <i>Dwi</i> -Semi <i>Śruties</i>

He further comments that the above scale of the *Ṣaḍja Grāma* corresponds to the principle of the fixation of the modern Indian musical notes, and the *Madhyama Grāma* scale resembles the European scale.

Nothing can be said with precision why our illustrious Maharana has taken such a view that four *Śruties* interval exists between *Sa* and *Ri*. With due apology to his scholarship, on a broad examination it will be found it is not so. Our present scale is affected by the West. Take a harmonium (though I agree it is a discarded instrument because no provision of *Śruties* is made in it) and take a normal *Ṣaḍja Grāma* scale and determine the notes. Now lower the *Sa* to the *Ni* (of the lower *Saptaka*). Having taken this *Śuddha* (natural or usual) *Ni* as the tonic note, the following will be observed :

The original *Sa* is now *Kōmal Rikhab* (flat *Ri*) in the new scale, but it has four *Śruties* distance, and according to broad calculation *Ri* in the present scale is six *Śruties* distant [for in the former scale *Kōmal Ri* is *Śuddha* (flat) *Ri* of the present scale and it is two *Śruties* distant the former *Sa*].

This presents considerable difficulties and we have again to resort to the fre-

quency plan and determine the pitches according to mathematical calculation in the *Ṣaḍja Grāma* scale of the standard size.

Vikṛta Swaras.—*Vikṛta* or modified notes are “affected by the change of frets (backward or forward).” Sāraṅgadeva, the great scholar, observes these by the method of the determination of *Swara Sādhāraṇya*, i.e., fusion of notes. It is supposed that two adjacent notes meet at a common place when moved backward or forward. In this way supposing *Ga* moves forward and takes two *Śruties* of *Ma*, *Swara Sādhāraṇya* is supposed to have been resulted in a *Swara* which is situated at a common place to both, tonal value differing from both the notes.

* *Kinds of Sādhāraṇya*.—*Sādhāraṇyas* have four varieties, viz., *Kāklai*, *Antarā*, *Ṣaḍja* and *Madhyama*.

- (a) *Kāklai Sādhāraṇya* occurs when *Ni* moves forward taking two *Śruties* from *Sa* becomes a four *Śrutied* “pitch” (i.e. *Kāklai Ni* note or *Ni* sharp by enhanced two *Śruties* and *Sa* flat by losing two *Śruties*).
- (b) *Antara Sādhāraṇya* : When *Ga* moves forward and takes two *Śruties* of *Ma*, *Antara Ga* is produced.
- (c) *Ṣaḍja Sādhāraṇya* : Here *Ni* moves forward and takes the first *Śruti* of *Sa* and *Ri* moves to take its last *Śruti*.
- (d) *Madhayama Sādhāraṇya* : In this case *Ga* takes the first *Śruti* of *Ma* and *Pa* takes its last *Śruti*.

In the two cases of (c) and (d) resultant productions are four notes known as *Kaiśiki Ni*, *Cyuta-Mṛdu* or *Laghū Sa*, *Sādhāraṇya Ga* and *Mṛdu Pa*.

Ṣaḍja and *Madhyama Sādhāraṇyas* are also termed *Kaiśiki* or *Grāma Sādhāraṇya*—*Kaiśiki* being “*Kēś*”- (hair-) like. Where in a *Sādhāraṇya* a hair-breadth movement of notes exists, it is *Kaiśiki Sādhāraṇya*. In these two *Sādhāraṇyas*, viz., *Ṣaḍja* and *Madhayama* all *Swaras* move only by one *Śruti*, and since one *Śruti* interval is considered a hair-breadth interval they are termed *Kaiśiki*.

Coming to *Grāma Sādhāraṇya*, *Sa* and *Ma* are the tonic notes in the *Ṣaḍja* and *Madhyama Grāmas*. In both the *Ṣaḍja* and *Madhyama Sādhāraṇyas* the preceding or succeeding notes move towards the tonic, i.e., the note with which the *Grāma* starts, and, hence, they are called *Grāma Sādhāraṇyas*.

The use of the term *Vikṛta* during Sāraṅgadeva's age was not meant simply to express the sharpness or flatness of a note, but whenever the weight of a note was affected by the movement of its adjoining note under the principles of *Sādhāraṇya*, the former note was also called *Vikṛta* in spite of the fact that it did not move from its original position. Thus if *Pa* moves back and becomes three *Śrutied*, *Ma* and *Dha* both are *Vikṛta* although they remain unaltered.

Sāraṅgadeva considers that a *Gamut* consists of 19 notes of which 12 are *Vikṛta*.⁴ I shall deal with these later.

Pandit Sōmnāth, an ancient authority, differs with Sāraṅgadeva and maintains that five notes have not altered their own places and hence they cannot be classified under *Vikṛta Jāti* (caste or nature). Those notes are :

Acuta Ṣaḍja, *Vikṛta Rṣabha*, *Acuta Madhyama*, *Tri-Śruti Pañcama*, *Vikṛta Dhaivata*.

Probably in order to place his own theory while disagreeing with Sāraṅgadeva's but coming in conformity with the scriptural laws of music, Pandit Sōmnāth reduced the number of *Swaras* to 14 as well. Further he mentions three *Vikṛta* notes each of four *Śruties* then in vogue and gives them recognition. They are four *Śruti Ri* and *Dha* and *Tivra Ma*.

4. “*Saṅgita Ratnākara*,” Vol. I, v. 41-47.

He also gives a system wherein terminology has been modified. It is based on the number of *Śruties* from preceding any one of the notes, thus *Ga* name is given to five *Śruties* *Ri* since *Śruties* intervening *Sa* and *Ga* are counted.⁵

Lōcana Kavi of another classical eminence indicated *Vikṛta* notes by assigning several terms like *Kōmala*, *Tivra*, *Tivratara*, *Tivratama*, etc. He was the first to recognize *Kōmala Ri* and *Kōmala Dha* and *Tivratara Ma*.

Pandit Ahōbāl went a step farther and regarded all the 22 *Śruties* as *Vikṛta* notes. He evolved a terminology on a more systematic basis than was hitherto existent. He adopted the values by measurement and gave five *Vikṛta Svaras* and seven natural notes. For the rest of *Vikṛta Svaras* he opined that their usage was at the discretion of some musicians.

Swayambhū Svaras.—In estimating the note-value by a different method, Pandit Sōmnāth evolved the principle of self-emanating notes to which he called *Swayambhū Svaras*. He described the method to tune *Suddha Mēla Viṇā* thus :

"Over the fixed bridge (*Mēru*) four wires of varying thickness should be placed. On the right hand side of the *Viṇā* there should be three more wires also of varying thickness. Of the four wires over the *Mēru*, the first wire should be placed as the player could reach it with his left hand finger. The four wires should be so fastened that the first, which is below *Mandra*, produces *Anumandra Sa*, the second *Anumandra Pañcama*, third *Mandra Śaḍja*, and the fourth *Mandra Madhyama*.

"Of the three side wires, the first (or top-most) produces *Mandra Śaḍja*, the second (or middle) *Mandra Pañcama*, and the third (or the lowest) *Madhya Śaḍja*, these three are called *Śruties*.

"Even though those three wires are made to produce either *Mandra Śaḍja*, *Madhya Pañcama*, and *Madhya Śaḍja* or *Mandra Śaḍja*, *Madhya Śaḍja* and *Tāra Śaḍja*, they are again called *Śruties*.

"Under the first or *Anumandra Śaḍja* wire there should be placed six frets so as to produce the following *Svaras* : *Suddha Ri*, *Suddha Ga*, *Sādhārṇa Ga*, *Mṛdu Ma*, *Suddha Ma* and *Mṛdu Pa*.

"Under the second or *Anumandra Pañcama* wire the same six frets should produce the following *svaras* : *Suddha Dha*, *Suddha Ni*, *Kaiśiki Ni*, *Mṛdu Sa*, *Suddha Sa* and *Suddha Ri*.

"*Suddha Śaḍja* and *Suddha Rṣab* (mentioned in the previous verse) should not be accepted (i.e. should be omitted); for they are again produced by the third wire. By the third or *Mandra Śaḍja* wire, the same *Svaras* are produced as those produced by the first or *Anumandra Śaḍja* wire.

"Of the six *svaras* (suggested in the previous verse) *Suddha Madhyama* and *Mṛdu Pañcama* should be rejected for they are produced again by the fourth wire. In fact, by the fourth or *Mandra Madhyama* wire the same frets produce the following *Svaras* :

"The first two frets produce *Mṛdu Pañcama* and *Suddha Pañcama* the third is omitted, the fourth produces *Suddha Dha*, the fifth *Suddha Ni* and the sixth *Mṛdu Śaḍja*. There should be an additional (seventh) fret to *Kaiśiki Ni*. The nature of the *Svaras* produced by the four wires, which pass over the *Mēru* and the frets, has been properly described by me."⁶

He further states :

"The combination of the *Samvādi-Svaras* is as a rule pleasing to the ear so it has been mentioned by *Sāraṅgadeva* and others.

5. His Highness Maharana Shree VIJAYADEVJI Rana, Maharaja Saheb of Dharampur State : "*Śaṅgita Bhāva*," Vol. II, p. 47.

6. *Śaṅgita Bhāva*, Vol. II, pp. 49-50, 52,

"The *Svaras* *Ṣaḍja*, *Pañcama* and *Ṣaḍja-Madhyama* and other notes which are produced along the *Mēru* and the frets are mostly *Samvādīs*; because between any two of them there are 12 to eight *Śruties*." ⁶

The Pandit proceeds further and says :

"Besides the *Svaras* *Sa*, *Pa*, *Ma*, though fixed *Śruties* have been assigned to them in *Sāstras*, are *Svayambhū*. That is to say, they emanate spontaneously without an effort to produce them and as such are not artificially produced *Svaras*. I shall clearly explain the reason why they are so called. In the fourth wire and above the second fret, there emanates, spontaneously and without any contact of the wire with the fret, another fine sound similar to *Mandra Pañcama*. That *Mandra Pañcama* is *Svayambhū*. Likewise the *Svaras* *Sa* and *Ma* of the *Madhya* register are also *Svayambhūs*, inasmuch as the same fourth wire, when gently touched on the eighth and the 11th frets, gives rise to two other fine sounds similar to them. Hence the *Svaras* *Sa*, *Pa*, *Sa* and *Ma* which are five sounds similar to the actually produced *Sa*, *Pa*, *Sa*, *Ma*, but having nothing to do with any wire are *Svayambhū*.

"The *Svaras* *Ri-Dha*, *Ri-Mṛdu Pa* and others (of the type of *Ga*, *Ni*, *Ga*, *Pa*) which had been located according to the *Sāstras* on the analogy of *Sa-Pa-Sa-Ma* that emanate on the *Mēru* are also *Svayambhū* and over the eighth fret and below the first three wires, there are produced three finely sounding *Svaras* similar to *Pa*, *Ga*, *Pa*, which are produced by the same three wires striking against the same eighth fret. It is not regarded as an error if among the above mentioned *Svaras* some perhaps happen to be a little *more* or a little *less* by one *Śruti*.

"The fact that the *Svaras* in *Anumandra*, *Mandra* and *Tāra* registers correspond, in nature to the *Svaras* located in the *Madhya* register is acknowledged by those who have a sound knowledge of the *Svaras*. The above authoritative description was given by me as a result of my thinking and experience."

I do not need to comment on the above exposition of Pandit Sōmnāth as he has explained his system with probable error.

Next to him comes Pandit Ahōbāl, the author of *Śaṅgita Pārijāta*, to determine the Octave by means of measurement of the speaking wire. He takes a wire of 36 inches and finds that the *Tāra Sa* (the Octave) is exactly in the middle and *Ma* is produced at the distance just in the middle of the two *Ṣaḍjas* (i.e., the fundamental note and its Octave). Thus :

| S . R G M P D N S |

This follows :

<i>Ṣaḍja</i> is at	.....0"
<i>Rṣabha</i> is at	.....4"
<i>Gāndhāra</i> is at	.....6"
<i>Madhyama</i> is at	.....9"
<i>Pañcama</i> is at	.....12"
<i>Dhaivata</i> is at	.....14 ² / ₃ "
<i>Niṣāda</i> is at	.....16"
<i>Ṣaḍja</i> (higher Octave) is at	.....18"

The above measures of the notes are not the result of the measurement theory as enacted by Pandit Ahōbāl, but the theory of consonance has also been applied in locating the positions of *Ri*, *Dha* and *Ni*. Ahōbāl's reading is ambiguous, but Pandit Hṛdya Nārāyaṇ Deva has made a more lucid statement supporting his (Ahōbāl's) theory in his *Hṛdaya Prakāśa*. According to him if the distance bet-

ween *Ṣaḍja* and *Pañcama* is divided into three equal parts, then *Ri* will sound at the end of the first part. The fixation of *Dhaivatā* is according to the theory of consonance. It exists between *Pañcama*, and *Tāra Ṣaḍja*, and *Niṣāda* will sound at the end of the second part. An ultimate question arises, if the theory of measurement is accepted, if (and that is a big "if") *Ri* falls on the first division (as indicated above), *Dha* should also fall at the end of the first division if the distance between *Pa* and *Tāra Sa* is equally divided since *Pa* is in consonance with *Sa*. But it is not so, and the *Śruti*-value of *Rāmya* is to be determined separately to locate the note, *Dha*.

Ahōbāl's theory, therefore, has strict limitations. Nowhere, like other scholars on *Śruti*, has he mentioned the structure of the instrument chosen for experimental atmosphere under which the experiment should be undertaken and results calculated and the width of the wire to be used on a particular size of the *Tūmba* and body, for changes in these affect the frequency of *Śruties*. The second aspect of the criticism falls on dividing the wire length between *Sa* and *Pa* equally into three parts. If this is done the *Śruti*-value is disturbed. There are 13 *Śruties* between *Sa* and *Pa* (three for *Ri*, two for *Ga*, four for *Ma* and four for *Pa*). Now if the wire is equally divided, *Śruties* as well are equally divided as $4\frac{1}{3}$, $4\frac{1}{3}$, $4\frac{1}{3}$, that means *Ri* exists at the end of $4\frac{1}{3}$ *Śruti*, which is an absurdity. But it seems that Ahōbāl regards four *Śruties* for *Ri*. This whole then changes the entire structure of *Śruti* division.

The above exposition of the micro-notes' problem presents a complicated and undecided study of the subject. But not going deep into it, it can be said that there is an unequal division of *Śruties*. However, there are reasons to believe in their equal division. This diversity is all the more enhanced by the alteration in the fundamental note from *Chandōvatī Śruti* to *Kṣōbhiṇī*. My solid conviction is to dwell now more on fixing notes by the principle of consonance as guided by the frequency of *Śruties* and their vibrational value.

Whatever our ancient sages have written regarding the subject is of paramount importance in the physics of sound ; nay, credit goes to them, who, with, probably, less sensitive instruments at their disposal, gave those fineries of artistic readings which our modern appliances, with great modifications and sensibility, are, in certain cases, unable to record, or, if they are successful, those coincide or approximately agree with the ancient readings. All at once their researches cannot be deduced or interpreted in a way which our hearts desire ; nor do they need be challenged by any one who thinks otherwise, for a change in their formation without good reason and scholarship to which those sages achieved is apt to create confusion. I need a maximum period of a score of years from my contemporaries, critics and readers to present a lucid interpretation (based on the experimental readings on various bodies of instruments and the density of wires) of the investigations brought about after centuries-old practices of great Sanskrit scholars whose genius has struck the modern theorist with their rare judgment, delicate perception, acute sensitivity and profound learning.

TABLE OF VIKṚTA NOTES

No.	Name of Śruti.	Ahōbāl.	Lōcana	Nārada	Sārangadeva	Somanātha	Vyaṅkata Mukhi	Present
1	Tivra	Tivra Niṣāda	Tivra Niṣāda	Kaiśika Niṣāda	Kaiśiki Niṣāda	Kaiśiki Niṣāda	Kaiśiki Niṣāda	....
2	Kumudvati	Tivratara Niṣāda	Tivra Niṣāda	Kākalī Niṣāda	Kākalī Niṣāda	Kākalī Niṣāda	....	Kōmala Rṣabha
3	Mandra	Tivratama Niṣāda	Tivratama Niṣāda	Cyuta Niṣāda	Cyuta Niṣāda	Mṛdu Niṣāda	Kākalī Niṣāda	....
4	Chandovati	Ṣaḍja	Ṣaḍja	Acyuta Niṣāda	Acyuta Niṣāda	Ṣaḍja	Ṣaḍja	Rṣabha
5	Dayavati	Pūrva Rṣabha	....	....	....	....	....	....
6	Rañjani	Kōmala Rṣabha	Kōmala Rṣabha	....	....	....	....	Kōmala Gāndhāra
7	Raktikā	Rṣabha (Pūrva Gāndhāra)	Rṣabha	....	Vikṛta Rṣabha	Rṣabha	Rṣabha	Gāndhāra
8	Mandra	Kōmala Gāndhāra (Tivra Rṣabha)	....	Vikṛta Rṣabha	....	Catus Śruti Rṣabha	....	....
9	Krōdhi	Gāndhāra (Tivratara R)	Gāndhāra	....	Gāndhāra	Gāndhāra	Gāndhāra	Madhayama
10	Vajrikā	Tivra Gāndhāra	Tivra Gāndhāra	Sādhārāṇa Ga	Sādhārāṇa Ga	Sādhārāṇa Gāndhāra	Sādhārāṇa Ga	....
11	Prasariṇī	Tivratara Gāndhāra	Tivratara Gāndhāra	Antara Gāndhāra	Antara Gāndhāra	Antara Gāndhāra	....	Tivra Madhayama

TABLE OF VIKRĀTA NOTES

No.	Name of Śruti.	Abhāl.	Lōcana.	Nārada.	Sāraṅgadeva.	Sōmanātha	Vyākṛta Mukhī.	present.
12	Pṛīti	Tivratama Gāndhāra	Tivratama Gāndhāra	Cyuta Madhayama	Cyuta Ma	Mṛdu Madhayama	Antara Gāndhāra	....
13	Marjani	Madhayama (Ati-Tivratam Ga)	Madhayama (Ati-Tivratam Ga)	Acyuta Madhayama	Acyuta Ma (Madhayama)	Madhayama	Madhayama	Pañcama
14	Kṣīti	Tivra Madhayama	....	....	....	....	....	....
15	Raktā	Tivratara Madhayama	Tivratara Madhayama	....	....	Tivratama Madhayama	....	Kōmala Dhaivata
16	Sandīpini	Tivratama Madhayama	....	Tri-Śruti Pañcama (Kaiśika Pañcama)	Tri-Śruti (Kaiśika Pañcama)	Mṛdu Pañcama	Varālī Madhayama	....
17	Alāpini	Pañcama	Pañcama	....	Pañcama	Pañcama	Pañcama	Dhaivata
18	Madantī	Pūrva Dhaivat	....	....	....	....	....	....
19	Rohiṇī	Kōmal Dhaivat	Kōmala Dhaivat	....	....	....	....	Kōmala Niṣāda
20	Ramya	Dhaivat (Pūrva Niṣāda)	Dhaivat	....	Vikṛta Dhaivat	Dhaivat	Dhaivat	Niṣāda
21	Ugra	Kōmal Niṣāda (Tivra Dhaivata)	....	Vikṛta Dhaivat	....	Catus-Śruti Dhaivat	....	....
22	Kṣōbhiṇī	Niṣāda (Tivratara Dhaivata)	Niṣāda	Niṣāda	Niṣāda	Niṣāda	Niṣāda	Ṣaḍja

OBITUARY

THE LATE MAḤĀMAHOPĀDHYĀYA PROF. S. KUPPUSWAMI SASTRI

शरत्पगतो भीष्मः शाम्यन्निव हुताशनः¹

So did that Bhīṣma of learning appear when in the first half of 1943. I ran to Ganapati Agraharam on hearing about our beloved Professor's illness, and saw that mighty personality reclining in his sickbed. The body was ill, but that spirit, that will, that white-hot intellect was all in tact. As I neared him and he held my hand, tears welled up in his eyes, and he said that the scene was similar to that pointed by Bāṇa, Haṣavardhana rushing to Rājyavardhana's bedside, and added, looking at me and his son who was also nearby, 'Do not push the comparison further. I am going to live for twenty-five years more.' Some months later, he was again in a serious condition, but he was continuously affirming his long life; not because this Vedāntin valued life as such, but because, as he reiterated in many public utterances of his, he yet wanted to teach more and help to knowledge still many more that might seek him. The Kulapati passed away on 5-9-43, but the long life that he was affirming will be that of his fame, of the Yaśaḥ-kāya of one to whom more than to anybody else, Sanskrit Learning in South India, on both the traditional and the modern styles owes so much.

आस्त एव निरातङ्गं कान्तं कीर्तिमयं वपुः²

The late Professor was born on 15-12-1880 in the village of Gaṇapati Agrahāra on the banks of the Kāveri in the Tanjore Dt., the banks along which Paramahamsas like Sādāsiva Brahmendra roamed. The Professor's family was well-known in the place as Malayālasthas, indicating their migration, and one of his maternal great-grandfather was a courtier of the Tanjore court and held an annual reception to king Serfoji at Ganapati Agrahāra. Kuppuswami by the popular name and Venkatavarma by his Saṁskāra-name, he was the fourth son of Seturama Ayyar, and his maternal grandfather Vengu Śāstrigal was a Catusśāstrapāraṅgata who later became a Saṁnyāsin. Vengu Śāstrigal who attained Siddhi at the fourth year of the Professor woke up his grandson at midnight, before himself taking to Saṁnyāsa and gave him fresh milk sanctified with his Abhimantraṇa. Even before this the grandfather had taught the child the entire Devī hymn of 500 stanzas, the Mūkapañcaśatī.

‘धनेन न रमामहे खलजनान्न सेवामहे

न चापलमयामहे भवभयात्न दूयामहे ।’³

which the Professor was often repeating, he was repeating from his third year. His uncle Muttappa Sastrigal and elder brother Seshādrinātha Sastrigal taught him kāvyā and Alankāra. He was also put to the English School at the nearby Trivadi but before he reached his III form there, he had become a master of Sanskrit. It was decided to teach him the Śāstras in Sanskrit primarily, and to give English education secondarily. The chief Guru of our Professor in the Śāstras was the Saṁnyāsin, Śrī Brahmendra Sarasvatī, familiarly known as Paḷamāneri Svāmigal, who

1. M. Bhārata, Śānti, 45. 11.

2. Kāvya-darśa I.

3. Mūkapañcaśatī.

was a pupil of Rāmā Śāstrīgal and Sundara Śāstrīgal the pupils of the famous Mm. Tyāgarāja alias Rāja Sastrīgal of Mannārguḍi, author of Nyāyendraśekhara and other works. Professor studied Vedānta, Nyāya and Mīmāṃsā under this Paḷamāneri Svāmīgal. Pūrva-mīmāṃsā, for the special proficiency in which, he became well-known in Pandit circles, the Professor mastered early in his life. Later he studied Vyākaraṇa under Nīlakaṇṭha Śāstrīgal of Trivadi, and some more Nyāya under Candraśekhara Śāstrīgal. A remarkable feature of the Professor even when he was a student at the feet of Śrī Paḷamāneri Svāmīgal was the great trouble he took to note down all references to other texts, secure those works and pursue to the full all the issue raised in the cross-references; and this thoroughness stood out prominently in his work of guiding Research scholars.

In 1896, he passed the Matriculation examination and graduated from the S. P. G. College at Tanjore in 1900, with Philosophy as his special subject. He then entered the Revenue Board as a clerk on Rs. 25, but after six months resigned this, the only subordinate job in his life, as he was not granted leave to rush to the side of his ailing mother. The mother survived him and passed away six months after the Professor passed away, but the resignation was a significant episode in his life. seeking an independent life, he studied law at Madras and Trivandrum, all the time continuing his Śāstraic studies, but without qualifying as a lawyer, he became a Master of Arts in 1905.

At Mylapore, Madras he was giving some religious discourses, and the easy mastery with which this young man was handling advanced Advaitic polemical texts brought him into contact with the late V. Krishnaswami Ayyar, the founder of the Mylapore Sanskrit College. It did not take long for the young man to demonstrate his reputation and convince Sir V. Krishnaswami Ayyar, who, by appointing him as almost the first Principal of his Sanskrit College, discovered Śrī S. Kuppuswami Śāstrīgal for Sanskrit. It was in the years 1906-1910 when he was Principal of the Mylapore Sanskrit College, that some eminent Paṇḍitas of to-day who are now Mahāmahopādhyāyas were his students.

He was next to take charge of the Principalship of the Trivadi Sanskrit College soon after the Government raised its status to a college. Here again, in the years 1910-14, his teaching gave to the world of Sanskrit scholarship a set of distinguished Paṇḍitas.

In 1912, he was called upon to act in the leave vacancy of the late Prof. M. Rangacharya, Professor of Sanskrit in the Presidency College, Madras. When Prof. Rangachari retired subsequently, Śrī Kuppuswami Sastri became the permanent Professor of Sanskrit and Comparative Philology at the Presidency College, and Curator of the Madras Govt. Oriental MSS. Library, a position which he relinquished in 1935 when his official retirement happened. After a brief period of honorary Professorship at the Annamalai University, the Professor retired to his village where he passed away in September 1943 at the age of 64.

During his life as Professor of Sanskrit, he was a member of Senate and Academic Council and the President of the Boards of Studies and Examiners in the Madras University. He was a Member of the Court of the Benares Hindu University, and was connected as Examiner with most of the other Indian Universities. His legal training and Mīmāṃsā scholarship were great aids to him in the deliberations of the Madras University bodies, where his great constructive criticisms had contributed to the building up of the regulations and statutes of the University. He fashioned the Sanskrit Honours Syllabus, the Śiromani' course of study on the traditional lines, and the Oriental Titles, in the Madras University. He organised the Honours course in Sanskrit for three years with provision for the study of all the

4. The Professor's admiration for the brilliant Navadvīpa logician Raghunātha Śiromani was responsible for the Professor calling this title-course 'Śiromani'.

Sāstras by rotation, together with a special course in Comparative Philology of the Indo-Germanic Languages with special reference to Sanskrit. He took an intense love in Linguistics, a subject in which he equipped himself in emulation with his colleague, the English Professor in the Presidency College, Mark Hunter.⁵ This Honours Department produced many noteworthy scholars who are now occupying important places in the educational, intellectual, cultural, and administrative spheres in and outside Madras.

Prof. Kuppuswami Sastri brought into being through the Sanskrit Colleges and Honours Department of the Presidency College and the Madras University a School of South Indian Research, and through this school brought into teaching vogue higher and other classics in the different Sāstras like the Dhvanyāloka, the Kusumāñjali and the Nyāyabhāṣya; his Curatorship of the Govt. MSS. Library resulted in collection of numerous rare works, some of which he himself helped his students to publish, as for instance works of the Prābhākara school of Mīmāṃsā. He assisted actively in the establishment of the Oriental Research Institute of the Madras University. For the publication of the research turned out through all these agencies, he founded and edited the Journal of Oriental Research, Madras.

With his minute and accurate grip of erudite Sāstrāic text, the Professor combined a remarkable and keen love and enthusiasm for poetry and drama, and for the preservation of popular interest in Sanskrit, he started and conducted the Madras Sanskrit Academy.

The Professor was really a great teacher, who loved teaching more than taking leisure for himself to write books; he loved his pupils and gave of his best to them; he spent hours reconstructing broken manuscript-lines for his students' editions of texts, not to mention the time he gave to the works being produced by other scholars and submitted to him for suggestions and corrections. As a class teacher, he followed the method of spending additional time to broadbase and lay well the foundation, and equip the student to self-tuition in the later stages. He never felt tired of repeating again and again for a backward student. His heart was generous, and never exclusive; even to scholars, who were not his students, he did not stint to render assistance. Satisfied with some good aspect of work, he had the depth of personality to forgive or forget the failures in those that came to him; though one who held fast to standards of intellectual honesty and high academic quality, he did not refuse his help as a scholar even to those who did not care much for such ideals.

He had taken a leading part and presided over sections from the very inception of the All-India Oriental Conference; in the Philosophical Congress; in the well-known Kāñcīpuram Pariṣat, and the Advaita Sabhā of S. India. He presided over the All-India Sanskrit Conference at Calcutta. He was the 'Vidyāvācaspati' of the Bharata Dharma Mahamandal, 'Darśana Kalānidhi' of the H. H. Śaṅkarācārya Mutt of Kāñcī, 'Kulapati' of the Govardhan (Puri) Śaṅkarācārya Mutt, and an 'I.E.S.' and 'Mahāmahopādhyāya' of the Govt. of India.

Besides his class-teaching, the Professor undertook to deliver under the auspices of the Madras University long courses of lectures on all the Sāstras, which formed one of the formative forces in the building up of his school of S. Indian Research. The following represent his lecturing work:

1913 : 20 lectures on Hindu Philosophy with special reference to Nyāya and Vaiśeṣika.

1918 : 20 lectures on Indian Epistemology.

5. Among Philologists, Jespersen exercised a great fascination over the Professor, when the Professor was on his death-bed. News of Jespersen's death in the papers was conveyed to him by me; and the Professor said that an under-current of deep philosophy flowed in the sentences of Jespersen.

- 1919 : 20 lectures on Methods and Materials of Literary Criticism in Sanskrit.

Another Course on Indian Theism.

- 1927 : Philosophy and Exegetics of the Mīmāṃsā system.
 1928 : 'Sentence-split, Beginning and End' (Vākyabheda, Upakrama and Upasāṃhāra).
 1929 : Thought-measuring Devices in Indian Dialectics (Nyāya).
 1931 : Highways and Byways of Literary Criticism. (Annamalai University).^c
 1935 : Matter, Spirit and God in Nyāya-Vaiśeṣika.
 1936 : Compromises in the history of Vedānta.^d

The following represent the few articles that the Professor could write in the midst of his heavy work as teacher, guide to research students, and organiser of schemes and programmes for Sanskrit which absorbed a great deal of his vigilant energies.

- 1922 : The Prabhākara School of Karmamīmāṃsā (Proceedings, II All-India Oriental Conference, Calcutta ; presidential address, Indian Philosophy section).
 1924 : Introduction to Nīlakaṇṭha Vijayacampū (Bālaṃanoramā Press, Mylapore, Madras).
 1925 : (a) Further Light on the Prābhākara Problem.
 (b) Bodhāyana and Dramiḍācārya, Two Vedāntins presupposed by Rāmānuja. (Proceedings : III All-India Oriental Conference).
 1926 : (a) Introduction to the Ācāryacūḍāmaṇi (Bālaṃanoramā Press, Mylapore).
 (b) Presidential Address in Sanskrit to the All-India Sanskrit Sāhitya Pariṣat, Calcutta (Printed in the Samskr̥ta Sāhitya Pariṣat Patrikā).
 (c) A Few Problems of Identity in the Ancient Cultural History of India (Presidential address, IV Oriental Conference, Allahabad, Indian Philosophy Section).
 1927 : (a) Sundarapāṇḍya : JOR, Madras, I, pp. 1-15.
 (b) Bhadanta. *Ibid.*, pp. 25-26.
 (c) Aravaṇavaṭikal. *Ibid.*, pp. 191-201.
 (d) Aravaṇavaṭikal. *Ibid.*, II, pp. 79-83.
 1927 : (a) Rāvaṇa-bhāṣya : J.R. Madras, III, pp. 1-5.
 (b) Kośavān Ācāryaḥ. In "Essays by Diverse Hands," Madras Library Association.
 1930 : Foreword on Śrīharṣa and the Naiṣadhāya Carita (edn. of Pandit Vyasaraya Sastri ; R. S. Vadhyar, Palghat).
 1933 : (a) Foreword to the Vālmiki Rāmāyaṇa (edn. by M. L. J. Press, Mylapore, Madras).
 (b) Introduction to Mādhavānanda's Edition of the Bṛhadāraṇyaka Bhāṣya of Saṅkara and Translation (Māyāvati, Almora).
 1934 : Pūrṇaism in Indian Thought (Presidential Address to the Indian Philosophy Section of the 10th All-India Philosophical Congress, Waltair, Published in the Proceedings).
 1935 : Presidential Address in Sanskrit to the Paṇḍita Pariṣat, 8th All-India Oriental Conference, Mysore. Printed in the Proceedings.
 1936 : Convocation Address to Graduates of the Madras University (Printed by the University).

6. Both of these are going to be published by the Kuppuswāmi Sāstri Memorial Committee ; of the rest, the Professor has left copious Notes, points from which may be published in the Journal of Oriental Research,

Besides these he contributed short but scholarly and inspiring forewords to many of the publications of his students, and the popular booklets of the Madras Saṁskṛta Academy.

The late Professor undertook not only to rewrite for publication in book-form all his lectures in the Madras University, but also to write some works on Sanskrit Philology, Philosophy of Grammar, Mīmāṃsā, etc.; but he could never do any of these items of writing work. The following represent his books, written or edited.

1. Nearly 66 Volumes of Descriptive Catalogue of the Madras Oriental Library.
2. Padyacūḍāmaṇi (jointly edited : Madras Govt. Ori. MSS. Library).
3. Viṇāvāsavadatta (J.O.R., Madras).
4. Vibhramaviveka of Maṇḍana (J.O.R., Madras).
5. A Primer of Indian Logic (P. Varadachari & Co., Madras).
6. Brahmasiddhi of Maṇḍana with Saṅkhaṇḍi's commentary (Madras Govt. Ori. MSS. Library).
7. Dhvanyāloka, with Locana, Kaumudī and Upalocana (the last by himself). Uddyota I, to be issued by the K. Sastri Memorial Committee.

His edition of the Adhvanamimāṃsākutuhlavṛtti and some volumes of the Saṁkara-Works Series of the Vani Vilas Press have already been mentioned.

No other Sanskritist of S. India, and few of the rest of India, had combined an all round traditional Pāṇḍitya both in Śāstra and Kāvya in such measure with modern scholarship; and surely no single Sanskritist has contributed so largely to the cause of Sanskrit learning and education in the Madras Presidency as the late Professor, Mr. S. Kuppuswāmi Śāstri. May the Research Institute which his students, admirers and friends are planning to establish in his name in Madras become a successful reality and keep alight the lamp of learning lit by him.

प्राच्यप्रतीच्यविद्याकूलकषशेमुषीकानाम् ।
 अनुकुर्युः के कीर्तिं महामहाचार्यवर्याणाम् ॥ १ ॥
 पदे यत्पदं नैव चस्खाल, वाक्यम्
 यदीयं सदा तद्वाक्यमाकांक्षते स्म ।
 प्रमाणे प्रमाणं च ये, ते महान्तः
 त्रिधामान आसन् स्वमेधोरुगायाः ॥ २ ॥
 येषामुपनिषन्मार्गे नासीदुपनिषत्कचित् ।
 रसे रसो महान् येषां ते बभूवुः सर्वपार्षदाः ॥ ३ ॥
 बह्वयः पद्धतयो यैः प्राचिना पूर्वलुप्तशास्त्राणाम् ।
 नीता पुनः प्रकाशं विद्या ब्रह्माण एव ते रेजुः ॥ ४ ॥
 विद्वद्विमर्शिसमितिः विद्या शालापि वा कचित् ।
 सा नास्ति भारतोर्व्याम् यस्यां ते नायका नासन् ॥ ५ ॥
 ददुर्ज्ञानं ददुर्दृष्टिर्मूचुश्च प्रेमपेशलम् ।
 जजागरुश्च क्षेमाय को गुरुस्स्यात्तथा पिता ॥ ६ ॥
 येषां स्वकीर्तेः शिष्याणां कीर्तिरिष्टा महात्मनाम् ।
 उक्त्वा तानस्मदाचार्यान् वक्ष्यामोऽन्यान् गुरुन् कथम् ॥ ७ ॥
 मोक्षादपि भुवि ज्ञानदानं ये मेनिरेऽधिकम् ।
 अपूर्वबोधिसत्त्वेभ्यः तेभ्यस्सन्तु नमांसि नः ॥ ८ ॥

REVIEWS

Jñānadīpikā (*Mahābhārata-Tātparya-Tīkā*) of Devabodhācārya on the Udyogaparvan of the Mahābhārata, critically edited by Dr. S. K. DE, M.A. D.LITT.; Bhāratiya Vidyā Series No. 3; Bhāratiya Vidyā Bhavan, Bombay, 1944. Pp. xvi + 74; Price Rs. 3; Size 9 $\frac{3}{4}$ " × 6 $\frac{1}{2}$ ".

Recently Dr. R. N. DANDEKAR brought out a critical edition¹ of the commentary of Devabodha on the *Ādīparvan* of the *Mahābhārata*. We are glad to have the present critical edition of this important Commentary for the *Udyogaparvan* by Dr. DE, who has already edited this parvan in the *Critical Edition of the Mahābhārata* by Dr. V. S. SUKTHANKAR. So far Devabodha's Commentary for the *Ādi*, *Sabhā*, *Udyoga*, *Bhīṣma* and *Drona* parvans is available and perhaps we may find some day this Commentary for other parvans as well. Dr. DE has based his edition on a unique palm-leaf MS belonging to the Royal Asiatic Society, Bengal, but it is incomplete, much damaged and fragmentary.

It was the late Dr. SUKTHANKAR who first realized the importance of this Commentary. He pointed out that Devabodha is the earliest *Mahābhārata* Commentator and hence deserves the foremost consideration in a Critical Study of the Epic text. On a survey of the relative chronology of other Mbh. Commentators Dr. DE finds that there is nothing against placing Devabodha earlier than A.D. 1150. His Commentary is not extensive. It is of the nature of a brief running gloss on difficult words and phrases. It gives also occasionally the gist of Sections and Chapters. Its main value lies, however, in its evidence, both positive and negative for the constitution of the critical text.

Nothing is known about the personal history of Devabodha as observed by the learned editor in his excellent and elaborate Critical Introduction. Muni Jinavijayaji, however, in his appreciative Foreword to the volume before us is inclined to identify our Devabodha with his name-sake who was contemporary of Hemacandrācārya "on account of the similarity of description and also because both appear to belong to the same period and hail from the North."

In view of the importance of the Commentaries on the *Mahābhārata* for textual and other purposes it is necessary to edit them critically. We, therefore, congratulate Dr. DE and the authorities of the Vidyā Bhavan for the present edition of Devabodha's Commentary on the *Udyogaparvan* and trust that the Vidyā Bhavan's *Bhāratiya Vidyā Series* will be adorned before long with many volumes of the critical editions of other early commentaries on the Mahābhārata, which is the ocean of the *Bhāratiya Vidyā* par excellence.

The late Dr. SUKTHANKAR has been rightly called "the father of Indian textual criticism" as will be seen from Dr. DE's remarks which conclude his clear-cut scholarly Introduction as follows :—"This small work owes its inception to the suggestion of my departed friend, Vishnu S. SUKTHANKAR; but little did I expect when I undertook it last year that he would not live to see its completion. He was our Pathikṛt in the Critical Study of the Mahābhārata but to me he was Kalyāṇamitra in this life and beyond and it is with melancholy satisfaction that I redeem my promise to him to edit this work."

P. K. GODE.

Anūpasimhaguṇāvatāra by Viṭṭhala Kṛṣṇa (The Ganga Oriental Series ; Dedicatory Volume) Edited by Dr. C. K. RAJA, M.A., D. PHIL. (Oxon) ; Anup Sanskrit Library, Bikaner, 1942 ; Pp. V + 103 ; Size :—5½ " × 8¼ ".

The *Ganga Oriental Series* started by the Bikaner Darbar recently will be hailed with delight and gratitude by every Sanskritist in this country and outside. It is one of the many benefactions which commemorated the Golden Jubilee of His late Highness the Maharaja Shri Ganga Singhji Bahadur, who had the highest regard and love for our ancient Sanskrit literature and culture like his illustrious ancestor Maharaja Shri Anup Singhji whose name the Sanskrit library at Bikaner bears. Shri Anup Singhji was created the first Maharaja in A.D. 1687. He died at Adoni in the Deccan in A.D. 1698. The main body of MSS in the Anup Sanskrit library were collected during the stay of this Maharaja in the Deccan as the library contains many rare works by Maharashtra authors. This library was first catalogued in 1880 by Rajendra Lal MITRA. We learn with the greatest satisfaction that an upto-date revised catalogue of this collection will be published shortly by the Bikaner Darbar. It is prepared by our friend, the indefatigable Dr. C. K. RAJA, the General Editor of the *Revised Catalogus Catalogorum* to be published by the Madras University. It is but in the fitness of things that the Dedicatory Volume in the *Ganga Oriental Series* should be a poem dealing with the greatness of the illustrious founder of the Sanskrit library of the Bikaner Darbar. The Sanskritists of Maharashtra, no less than their brethren outside, will be delighted to learn from the Preface of Shri K. M. PANIKKER, the Minister of Education, Bikaner, that the Anup Sanskrit library has been thrown open to the public. This progressive step coupled with the appointment of a learned and energetic Curator in charge of this library, who is also the General Editor of this Series working under the guidance of his guru Dr. RAJA will before long give a new impetus to Sanskrit learning in Rajputana, so full of martial traditions, which need to be sublimated to intellectual heights, if Rajputana is to keep pace with other parts of India in the flow-tide of Oriental learning now filling the nooks and corners of this Bhāratavarṣa from Cape Comorin to the Himalayas.

The poem *Anūpasimhaguṇāvatāra* presented in this volume by Dr. RAJA with his elegant translation consists of ten sections dealing with ten topics *viz.* आशीर्वाद, सौन्दर्य, सम्पद्, विजय, प्रताप, दान यशस्, धर्म, भक्ति and अभय. They indicate the Indian ideal of Kingship of which Anūpasimha was an embodiment. The memory of such an illustrious ancestor must have played no small part in creating an intense love for Sanskrit learning in the mind of His Highness the late Maharaja Shri Ganga Singhji Bahadur, to whose benefaction we owe not only the preservation of Sanskrit MSS. at Bikaner but also their projected publication in the *Ganga Oriental Series* with the co-operation of the learned men of the land. We feel confident that the contract of an eminent Sanskritist like Dr. RAJA with the late Highness Shri Ganga Singhji Bahadur of Bikaner, which has paved the way for the regeneration of Sanskrit learning at Bikaner will before long give us many learned publications in this Bikaner Sanskrit Series and the present Dedicatory Volume is an appropriate and inspiring effort in this direction.

P. K. GODE.

Jñānadīpikā (commentary by Devabodha on the Ādiparvan of the *Mahābhārata*), Edited by Dr. R. N. DANDEKAR, M.A., PH.D., B. O. R. Institute, Poona, 1941, pp. iv + 107 ; Price Rs. 4.

It is for the first time that a critical edition of this *oldest* extant commentary on the *Mahābhārata* by Devabodha has been published. Dr. V. S. SUKTHANKAR,

the General Editor of the *Mbh* first established its value and importance for the constitution of the text of the Great Epic and entrusted the work of editing it critically to Dr. R. N. DANDEKAR on the basis of manuscript material collected (2 MSS from the Oriental Institute, Baroda and one MS from the Royal Asiatic Society of Bengal, Calcutta) for the *Mbh* Department of the B. O. R. Institute. One of the Baroda MSS is dated A.D. 1584 but the other one designated B, though not dated is very valuable as it preserves the text "in the completest and the least corrupt form" as observed by the Editor in his Introduction to the present edition. Though this commentary is unaccompanied by the text of the epic, Dr. SUKTHANKAR has found that the version of the text commented on by Devabodha was of the "Śāradā—K type." We, therefore, await with eagerness the publication of this commentary on the *Sabhā*, *Udyoga*,* *Bhīṣma* and the *Droṇa parvans*, promised by the Editor. The present editor had the benefit of the "help and advice" of the late Dr. SUKTHANKAR and we trust that the learned Editor will make good use of this experience in giving us before long the editions of this commentary on the *parvans* referred to above, though unfortunately Dr. SUKTHANKAR has not lived to see this work completed. The object of Dr. SUKTHANKAR in entrusting this work to the Editor as Dr. SUKTHANKAR once told the writer personally, was to acquaint him with the method of critical editing of texts. We are, therefore, glad to find that the Editor has done his job conscientiously in making good use of the MSS material kept at his disposal and we feel no doubt that he will give us the remaining portions of the available commentary in the near future with the same zeal and care as he has bestowed on the present edition.

The writer of this note undertook the study of the history and chronology of the *Mahābhārata* commentators ten years ago at the express suggestion of Dr. SUKTHANKAR. As a result of this study he has already published papers on *Vimālabhodha*,¹ *Arjunamiśra*,² *Vādirājatīrtha*,³ *Nilakaṇṭha Caturdhara*,⁴ *Ānandapūrṇa* alias *Vidyāsāgara*⁵ etc. Other studies are pending investigation but so far no satisfactory evidence has been traced to prove the Chronology of *Devabodha*. It is hoped that when the entire commentary of this oldest extant commentator on the *Mbh* is published by Dr. DANDEKAR it may facilitate the investigations of the writer about this elusive *Paramahansa Parivrajakācārya* referred to with approval and reverence by subsequent commentators.

In congratulating the Editor and the Bhandarkar O. R. Institute on this very useful and scholarly edition of the *Jñānadīpikā* of Devabodha we strongly hope that the B. O. R. Institute will publish critical editions of other *Mbh* commentaries and thus enrich the field of Epic studies, already ornamented by the monumental volumes of the Epic, so ably edited by the late Dr. SUKTHANKAR of immortal fame and his learned collaborators.

Poona

P. K. CODE.

* A critical edition of this portion of the commentary by Dr. S. K. DE, the Editor of the Critical Edition of *Udyoga* has now been published by the Bharatiya Vidya Bhavan of Bombay.—S. M. K.

1. *Annals* (B. O. R. Institute), XVII, 394-397.

2. *Indian Culture*, II, 141-146.

3. *Annals* (B. O. R. I. XVII, 203-210).

4. *Silver Jubilee Volume of the Annals* (1942), pp. 146-161.—Dr. A. B. KEITH regards this paper as "a very satisfactory piece of work" in his letter of 13-4-1943 to the author.

5. *Bharata Itihasa Samshodhak Mandal Quarterly*, XX, 29-36 (1939) Dr. V. RAGHAVAN's paper on this author (*Annals of Ori. Research* Madras University, 1940) confirms the limits for his date fixed in this paper.

THE DATE OF PARKARA IRAVI VARMAR.

By

K. N. DANIEL, Thiruvella.

Since we have a large number of inscriptions of the time of Parkara Iravi, Emperor of Keralam, his date is of immense importance to the History of Keralam as well as that of the Malayalam language.

Two Parkara Iravi Varmars.

We have a large number of inscriptions of the time of Parkara Iravi, some of them giving regnal years or age and the positions of Jupiter. I give below a list of some of those inscriptions with the years and respective positions of Jupiter.

The Tirukkākkara inscription of the 6th year, Jupiter in Iṭavam (2nd rāśi).

(*Trav. Arch. Series*, Vol. III, p. 180).

The Tirukkōṭittānam Inscription 13th year, Jupiter in Iṭavam (2nd rāśi))

(*Trav. Arch. Series*, Vol. II, p. 36).

The Perunna inscription 14th year Jupiter in Makara

(10th rāśi) (*Ibid* Vol. II, p. 34).

The Tirukkākkara Inscription 31st year, Jupiter in Dhanu

(9th rāśi) (*Ibid* Vol. II, p. 43).

The Tirukkākkara Inscription 31st year, Jupiter in Kumbham

(11th rāśi) (*Ibid* Vol. III, p. 183).

The Perunna Inscription, 33rd year Jupiter in Iṭavam (2nd rāśi)

(*Ibid* Vol. II, p. 44).

The Tirunelli Copper plate No. 2, 43rd year, Jupiter in Tulām

(7th rāśi) (*Ibid* Vol. II, p. 31).

The Tirunelli copper plate No. 1, 47th¹ year Jupiter in Chinṇam

(5th rāśi) (*Ind. Ant.*, Vol. XX, p. 290).

The Tirukkākkara Inscription 58th year, Jupiter in Chinṇam

(5th rāśi) (*T. A. S.*, Vol. II, p. 49).

There are two more inscriptions in which, though the year portion is damaged, the years can be guessed.

Tirukkākkara Inscription of the 13th year, Jupiter in Makaram

(10th rāśi) (*T. A. S.*, Vol. II, p. 39).

It is dated 2nd against 11th or 21st. On account of the damage of the first two letters, it may be read *Orupattonṟu* (11th) or *irupattonṟu* (21st).

Tirukkākkara inscription of the 43rd year, Jupiter in Mīnam (12th rāśi)

(*T.A.S.*, Vol. II, p. 47).

This is dated 2nd year opposite to the year forty and odd ; the portion containing the odd year is damaged, and therefore nothing more than a guess is possible. I take it as (2 plus 41) the 43rd year.

In the Tirukkākkara temple there are two inscriptions of the 31st year of Parkara Iravi, one of *Dhanuvyaḷam* (Jupiter in the 9th rāśi) and the other of *Kumbhavyāḷam* (Jupiter in the 11th rāśi). There is no gain-saying the fact that

1. *Chellāninṟayāṇṭaiketir nāḷṟpattāṟāmāṇṭu* (1 + 46) = 47th.

the people of Tirukkākkara will not make two inscriptions in the same year placing Jupiter in the 9th and 11th signs.

It will take nearly a year for Jupiter to travel one sign and nearly 12 years to travel the whole *rāśichakram* (ecliptic) of 12 signs. The 33rd year inscription does not agree with either of the 31st year inscriptions, because it places Jupiter in the 2nd *rāśi*. The 14th year inscription differs from the two 31st year inscriptions and the 33rd year inscription. If the years given are all regnal years there must have been four Parkara Iravi Varmans.

If we further take all the years as regnal and current, we have to postulate six Parkara Iravi Varmans. In case we take some of them as regnal years others as age, some as current and others as expired, these may be reduced to two.

It goes without saying that the 31st year of Parkara Iravi may mean 31st year of his age or of his reign. Recently the 60th year of the late Maha Raja of Travancore was celebrated all over Travancore. In the 40th century A.D., when all records, except the one which says that the 60th year of this King was celebrated, are lost, it may be contended that this King reigned more than 60 years. There is therefore no reason why we should take all the years as regnal. When we read of the 58th year, it is quite reasonable to take it as the age rather than the regnal year—a King seldom reigns 58 years—while the 6th year must be taken to mean the regnal year.

It is very common in this land that people, when asked of their age, sometimes give expired years and sometimes current years. The year of Kali is invariably given as expired and the Quilon era and Christian era as current. In Travancore a furlong stone with the inscription 3/6 means 2 miles and 6 furlongs; whereas in several other places it means 3 miles and 6 furlongs—in the latter 3 indicates expired mile.

"These positions", says Mr. K. G. Sankar, "cannot be reconciled with each other, unless we postulate the existence of at least four different Bhaskara Ravi Varmans. Since there is no justification for doing so, we have no alternative but to give up the problem as for the present insoluble." If there is no justification for postulating six Parkara Iravi Varmans, and if we insist on taking all the years as regnal and current, there is, for the present and for ever, no alternative other than to condemn seven of these inscriptions as wrongly dated. No one, I think, will prefer to condemn seven inscriptions as wrongly dated rather than to assume that years may be sometimes regnal and sometimes age, sometimes current and sometimes expired. We therefore, come to the conclusion that there were two Parkara Iravi Varmans. To postulate even six Parkara Iravi Varmans, it must be observed, cannot be condemned as preposterous, for there were four Rama Varmas among the Kings of Travancore during the 19th century. A reconciliation table showing eight inscriptions of Parkara Iravi Varmar I, and another showing three of Parkara Iravi Varmar II, are given infra.

Astronomical Evidence.

Now, fortunately, there are two inscriptions of these two different Parkara Iravi Varmans, which give astronomical positions. When these are put together, we have very sure astronomical data for calculating the dates.

The Perunna Inscription.

The first is the Perunna inscription of the 14th year. This is an incomplete inscription found in the temple at Perunna. Though the name of the king is not mentioned, it is unquestionably taken to be that of Parkara Iravi (*Trav. Arch. Series*, Vol. II, p. 34).

'All scholars including Mr. Daniel,' says Mr. Sankar, "hitherto assumed that the former (the Perunna inscription) is an inscription of Bhaskara Ravivarman.

But there is no justification for it in the inscription itself. The portion referring to the King's name is missing, and there is in it no mention either of Bhaskara Ravivarman's feudatory Govardhana Marthanda of Venadu." He further says that this inscription must belong to Intukotai, the predecessor of Parkara Iravi Varman.

There are three inscriptions of Intukotai which give regnal years and the positions of Jupiter, and they will not agree with the inscription in question, if we take it to be one of that king. In the 16th year of Intukotai Jupiter was in Chinnam (5th rāsi), while, according to the inscription under consideration, in the 14th year Jupiter stood in Makaram (10th rāsi). If in the 14th year Jupiter stood in the 10th rāsi, it must, in the 16th year, stand in the 12th rāsi. But it was in chinnam five signs ahead. So the 14th year inscription of the unmentioned king cannot be of Intukotai.

Now let us examine whether this inscription was unanimously taken by scholars as belonging to Parkara Iravi Varman with or without warrant.

(1) At Perunna, where the inscription in question is found, there is another inscription of Parkara Iravi Varman mentioned by name (*Travancore Arch. Series*, Vol. II, p. 44).

(2) At Tirukkōtittānam which is close to Perunna there are two inscriptions of Parkara Iravi Varman, which mention Kōvarttana Māttāṇṭan, the owner of Vēṇāṭn, (Vēṇāṭu ṭaiya) (Kōvarttana Māttāṇṭan) ruling Nanṇuḷa Nāṭu (*Ibid.*, Vol. II, pp. 33, 40).

In the above Perunna inscription a certain king of Vēṇāṭu (The name is not written because the inscription was left incomplete where it should occur. It stops at the word Vēṇāṭuṭaiya, i.e. the owner of Vēṇāṭu) ruling Nanṇuḷa nāṭu is mentioned (Nanṇuḷa nāṭu vāḷunṇa vēṇāṭuṭaiya), and he must be Kōvarttana Māttāṇṭan. Moreover this is dated the 14th year of the unmentioned emperor, and the Tirukkōtittānam inscription mentioned above is also dated the 14th year of Parkara Iravi. The unmentioned emperor, therefore, was Parkara Iravi.

(3) Further we see that this inscription, when taken to be that of Parkara Iravi Varman, agrees with two other inscriptions of that king. Is it reasonable to suppose that it was by mere chance? If in this inscription Jupiter was placed in the 9th rāsi instead of the 10th, it would not have agreed with any inscription of Parkara Iravi Varman.

The Perunna inscription named above, therefore, belongs to the time of Parkara Iravi. The astronomical positions given in that inscription are the following :—

"20th of the solar month Mina : Sunday, the 7th asterism and Jupiter in Makara."

I have examined the date of the grant for nearly 1,400 years from the end of the first century to the beginning of the fifteenth. The earliest day for which the date is correct is Kali 3626 (expired) 1,324,781st day of Kali, i.e. 8th March, 526 A.D. It was a Sunday. The whole day was the 7th asterism. Jupiter was almost in the middle of the Makaram rāsi. The next day for consideration is Kali 4160, 12th March, A.D. 1060 (1,519,829th day of Kali). This is the date given by Dewan Bahadur L. D. Swamikannu Pillai and it is correct.

1155 A.D. not suitable.

He has given one more date. Kali 4255, 13th March 1155 A.D. This date is not correct on the following reason. If *samkrāma* takes place 18 nāḷika after sunrise, the Malayalees reckon the next day as the 1st day of the month; whereas according to the system prevalent in India outside Keralam, if *samkrāma* takes place at any time during the day, that very day should be reckoned as the 1st day of the month. That the former was the system of Keralam from time immemorial, can be easily proved from inscriptions. Verify the following dates :—

- (1) Kollam 392, Friday, 17th Tulām (*Trav. Arch. Series*, Vol. I, No. XVI, p. 290).
- (2) Kollam 782, Thursday, 22nd Tulām (*Ibid.* Vol. I, No. X, p. 180).
- (3) Saka 1474, Monday, 29th Mētam (*Ibid.* Vol. I, No. VI, p. 105).
- (4) Saka 1416, Friday, 10th Minam (*Ibid.* Vol. I, No. XV, p. 265).
- (5) Saka 1472, Monday, 19th Mithunam (*Ibid.* Vol. I, No. XV, p. 271).
- (6) Kali 4702, Kollam 776 Saturn in Tula Jupiter in Kanni, Saturday, 22nd Mithuna, nakshatra Punarvāsu solar eclipse (*Ibid.* Vol. II, pp. 29, 30).
See the facsimile preserved in the Archaeological Office. Reading given in the book is wrong.

In Kali 4255 (A.D. 1155) *Minasamkramam* took place on a Tuesday, 27th *nālika* after sunrise, and therefore according to the Malabar system 1st Minam was on Wednesday. So 20th Minam was a Monday. But the inscription was made on a Sunday. The year 1155 therefore is not correct.

The Tirunelli Plate.

Now let us take the other inscription of Parkara Iravi Varman, which contains the necessary astronomical data for calculating the date. This is Tirunelli copper plate No. 2. "Wednesday, 8th day of the solar month Mīna and nakshatra Uttara Phalguni (12th asterism), when Jupiter stood in the Tula rāsi". I have examined this date also from the end of the 1st century to the beginning of the fifteenth. The earliest date for consideration is Kali 3671 (expired) 1,341,206th day of Kali, i.e., 22nd February 571 A.D. It was Wednesday. The whole day and almost the whole night was Uttara Phalguni the 12th asterism. The mean Jupiter was in Tula, the actual Jupiter passed into the next rāsi. "It has long been known," says Robert Sewell, I.C.S., "that in earlier years the Pañchānga Brahmans in India framed their local almanacs on calculations made by use of the mean as opposed to the true or apparent motions of the sun and moon. The change from the mean to the true systems of calculation was advocated by Sripati (A.D. 1040) and the latter system may have been adopted in some places about that time; becoming more general from about A.D. 1100 onwards" (*Epigraphia Indica*, Vol. XVII, p. 17). Anyhow it is certain that during the 6th century almanacs were framed "on calculations made by use of the mean as opposed to the true or apparent" motion of Jupiter.

Another date for consideration is Kali 3766, 25th February, 666 A.D. On this day 12th asterism came to an end 2 hours and 24 minutes after sunrise.

A.D. 1021 not suitable.

Dewan Bahadur Swamikannu PILLAI gives 1st March 1021 A.D. saying "Eṭṭu Chenṇa is, I believe, 9th and not 8th." He took the 43rd as the 41st and made 980 A.D., the date of Parkara Iravi Varman's ascension to the throne. The later writers blindly followed Swamikannu PILLAI and took it as a proved fact that the 1st regnal year of Parkara Iravi was 980 A.D. But this is based on the indisputably wrong assumption that the expression *Eṭṭu Chenṇa* is 9th and not 8th.

This can be clearly proved from dated inscriptions. Verify the following dates:—

- (1) Kollam 428, Minam 8 (*Eṭṭu Chenṇa*) Sunday (*T. A. S.*, Vol. VI, Part I, p. 24).

In the same place there is another inscription which enables even a layman to verify, this date, Kollam 428, 17th (*Patinēlāmtiyati*, the ordinary word for the 17th) Minam, Tuesday, (*Ibid.*, p. 25). Everybody knows that if 17th is Tuesday 8th is Sunday.

- (2) Kollam 336 Itavam 6th (*āṇu chenṇa*) Saturday Makayiram (*Early Sovereigns of Travancore*, p. 67).

6th Itavam 336 Kollam is 1,556,767th day of Kali. The first day of Kali was a Friday and therefore, 1,556,767th day was a Saturday, and the asterism of the day was Makayiram. The expression *aṟu chenṟa*, therefore means 6th and not 7th.

Let any astronomer verify the following dates :—

(3) Kollam 427, 21st Itavam (*irupattoṇṟu chenṟa*) Wednesday and Pañchami (inscription No. 13. *Ibid.*, p. 73).

(4) Kollam 393, Sunday, 8th Mētam (*eṭṭu chenṟa*), Makayiram (*Trav. Arch. Series*, Vol. I. p. 290).

(5) Kollam 778, Monday, 7th Mētam (*ēlu chenṟa*) (*Ibid.*, Vol. I, p. 178).

(6) Kollam 782, Friday, 6th Mētam (*āru chenṟa*) (*Ibid.*, p. 180).

(7) Kollam 945, Friday, 15th Itavam (*patināṇchu chenṟa*) (*Ibid.*, Vol. I, pp. 301, 302). The reading given is fifth Itavam which is a mistake. See facsimile.

(8) Saka 1467, Friday, 30th Tula (*muppatu chenṟa*) (*Ibid.*, Vol. I, p. 104).

(9) Saka 1486, Sunday, 20th Mētam (*irupalu chenṟa*) (*Ibid.*, Vol. I, p. 106).

(10) Saka 1487, Thursday, 6th Makaram (*āru chenṟa*) (*Ibid.*, Vol. I, p. 274).

(11) Saka 1489, Friday, 24th Tula (*irupattunālu chenṟa*) (*Ibid.*, Vol. I, p. 275).

(12) Saka 1493, Friday, 15th Itavam (*patināṇchu chenṟa*) (*Ibid.*, Vol. I, p. 277).

(13) Kollam 440 Karkkataka 23, Sunday (*irupattumūnnu chenṟa*) (*T. A. S.* Vol. VI, p. 26).

(14) Kollam 440, Tulam 30th, Monday (*muppatu chenṟa*) (*Ibid.*, p. 31).

In all the above inscriptions, as well as in many others I have verified, the word *chenṟa* is used to denote a current day. This word is never used to denote an expired day.

Mr. Ramanatha AYYAR in the Travancore Archæological Series, Vol. V, Part 1, appendix, points out two dates, which he thinks militate against my conclusion, Kollam 878 Itavam 7 (*ēlu chenṟa*) Thursday and Itavam 16th (*patināru chenṟa*) Saturday. On looking into an ephemeris which is based on the Tamil system, he found that 7th and 16th Itavam 878 Kollam were not Thursday and Saturday but Wednesday and Friday respectively.

The end of Mētam 878 Kollam was Kali 1754731-28-45-45. Itavasamkramam in Kollam 878 therefore took place on a Thursday 28 *nālika* after sunrise, and therefore Malayalees reckoned Friday as the first Itavam and others Thursday. The 7th Itavam, therefore, according to the Kerala system, was Thursday and 16th Saturday.

It is now overwhelmingly evident that the expression *eṭṭu chenṟa* is 8th, and not 9th, and therefore the date 1021 A.D. is wrong.

There are two other dates given by Swamikannu Pillai. They are Kali 4205 and 4216.

1105 A.D. not suitable.

Mr. Swamikannu PILLAI in a letter says that according to *Sūrya Siddhānta* Jupiter was in Tula on the 8th of Miṇa Kali 4205 (A.D., 1105). This is absolutely wrong. Had it not been for his sad demise, which took place a few days after, he would have accepted his error; because this is a matter of mathematical calculation, which does not admit any difference of opinion.

The late Mr. SEWELL in his *Indian Chronography* has given a table which enables a layman to calculate the mean longitude of Jupiter according to the various systems of Indian Astronomy.

According to all these systems Jupiter has completed seven signs and has passed into the next sign i.e. Vṛschika. According to *Sūrya Siddhānta* Mean Jupiter was seven degrees old in Vṛschika, according to the *Sūrya Siddhānta* with *Bija* four degrees, according to the *Ārya Siddhānta* 8 degrees, and according to *Brahma Siddhānta* and *Siddhānta Śirōmaṇi* 9 degrees,

Apparent Jupiter according to the *Sūrya Siddhānta* is 13 degrees 56 minutes (nearly 14 degrees), according to the *Sūrya Siddhānta* with *Bija* 10 degrees 52 minutes (nearly 11 degrees), according to the *Ārya Siddhānta* 15 degrees 59 minutes (nearly 16 degrees), according to the *Parahita* System which was used in Keralam 13 degrees 6 minutes old in *Vṛschika*.

Three gentlemen, who are good scholars in Indian Astronomy, published the results of their calculation according to the *Parahita* system. Mr. P. S. Purushothaman NAMBURI writes :—"On 8th Mīṇa 4205 (1105 A.D.) the mean Jupiter was 6 degrees 30 minutes old in *Vṛschika* and the apparent Jupiter 13 degrees 27 minutes." Mr. Sankaranarayana SASTRI, late Senior Pandit in Astronomy, Government Sanskrit College Trivandrum, found the mean Jupiter on the day to be 6 degrees 29 minutes and the apparent Jupiter 13 degrees 22 minutes old in *Vṛschika*. Mr. Punnasari Nampi Neelakanta SARMA, Principal Sanskrit College, Pattampi, who was an eminent scholar in Indian Astronomy, writes : - "The Mean Jupiter was 6 degrees 29 minutes, apparent Jupiter 13 degrees 6 minutes old in *Vṛschika*." The calculations of these gentlemen differ only in a few minutes. This difference is due to the fact that small fractions will have to be neglected very often. All agree in placing the actual Jupiter in the 14th degree i.e. in the middle of *Vṛschika*.

Now according to the *Parahita* system, the system followed in Kerala during the days of old, Jupiter was unquestionably in the 14th degree in *Vṛschika*. The hindmost is *Sūrya Siddhānta* with *Bija*, which was never used in Kerala. According to this system Jupiter was 11 degrees old in *Vṛschika* i.e. he passed the sign of *Tulā* more than four months before the date. Mr. Swamikannu PILLAI is, therefore, wrong in saying that on the day in question Jupiter was in the sign of *Tulā*, according to *Sūrya Siddhānta*.

It may be contended that, though according to no system known to us Jupiter can be placed in *Tulā* on the day under consideration, the system followed then may be one which placed him in that sign. I reply as follows : -

(a) It is indisputable that no astronomic system will place Jupiter in *Tulā*, when he is in about the middle of the next sign.

(b) Further it can be easily proved from inscriptions that the astronomic system used here during the middle ages did not place Jupiter 14 degrees behind. Searching through various inscriptions I found six which completely prove my statement.

(1) Kollam 371 (Kali 4297), Sun 24 days old in Aries (24th *Mēsha*) Jupiter in Cancer (*Karkaṭaka*) (*Trav. Arch. Series*, Vol. III, p. 35).

	Sign	Degrees	Minutes.
Kali 1569539th day			
Mean Jupiter according to <i>Parahita</i> system ..	3	13	17
Apparent Jupiter	3	8	12

(2) Kollam 427 (Kali 4353) Sun 21 days old in Taurus (21st *Vṛshabha*) Wednesday 5th *Tiṭhi* Jupiter in Aries (*Mēsha*) (*Some Early Sovereigns of Travancore*, p. 73). Kali 1590021st day. On verifying it is found that it was Wednesday and 5th *Tiṭhi* as said in the inscription.

	Sign	Degrees	Minutes.
Mean Jupiter according to <i>Parahita</i> system ..	0	3	59
Apparent Jupiter according to <i>Parahita</i> system ..	0	10	44

(3) Kali 4704 Kollam 778 sun 7 days old in Aries (7th *Mēsha*) Monday *Rōhiṇi* Jupiter in Scorpio (*Vṛschika*) (*Trav. Arch. Series*, Vol. I, No. X, p. 178).

Kali 1718182nd day. It is verified and found that the day was Monday and *Rōhiṇi*.

	Sign	Degrees	Minutes.
Mean Jupiter (Parahita)	7	2	32
Actual Jupiter (Parahita)	7	5	17

(4) Kali 4708 Kollam 782 Sun 6 days old in Aries (6th Mēsha) Friday Svāti 1st Tithi Siddhi Yōga Jupiter in Pisces (Mina) (*Ibid*, Vol. I, No. X, p. 179).

Kali 1719642nd day. It is verified and found that it was Friday, *Svati*, first *Tithi* and *Siddhi Yōga*.

	Sign	Degrees	Minutes.
Mean Jupiter (Parahita)	11	4	6
Apparent Jupiter (Parahita)	11	6	49

If on the date in question Jupiter was placed in *Tulā* by the then astronomic system, as Mr. Swamikannu Pillai would have us believe, Jupiter would have been placed in the previous sign during the days of the above four inscriptions; because in the above inscriptions apparent Jupiter was only 8, 10, 5 and 6 degrees old in their signs while on the day in question he was more than 13 degrees old. If the astronomic system of those days were such as to place Jupiter 14 degrees further behind than the *Parahita* system, he would have been placed in the previous signs in the four inscriptions named above. It is specially to be noted that the first inscription is of the 12th century. Since in 1196 (4297 Kali) Jupiter, which was only 8 degrees old in *Karkaṭaka* according to the *Parahita* system, was placed in the same sign, not in the previous, by the then astronomers, it is quite certain that in 1105 Jupiter, which was 13 degrees old in *Vṛschika* according to the same system, was placed by the then astronomers in the sign of *Vṛschika* itself, not in the previous sign, *Tulā*.

(c) Now of all the astronomic systems *Sūrya Siddhānta* with *Bija* places Jupiter further behind than all the others, according to which Jupiter was 10 degrees and 52 minutes old in *Vṛschika* on the day under discussion. We have inscriptions to prove that the astronomic system, used in Kerala during the Middle ages did not place Jupiter as behind even as the *Sūrya Siddhānta* with *Bija*.

(1) Kali 1702, Kollam 776, Sun 22 days old in Gemini (22nd *Mithunam*) Saturday, *Punarvāsu*. Solar eclipse Jupiter in Virgo (*Kanni*). It is verified and the details given here are found to be correct.

Kali 1717529th day.

	Sign	Degrees	Minutes.
Mean Jupiter (Parahita)	5	8	14
Apparent Jupiter (Parahita)	5	0	25
Mean Jupiter according to <i>Sūrya Siddhānta</i> with Bija	5	7	9
Apparent Jupiter according to <i>Sūrya Siddhānta</i> with Bija	4	28	9

Here according to *Parahita* system Jupiter is not even half a degree old but only 25 minutes old in the 6th sign; yet he was placed there by the astronomers of that period. *Sūrya Siddhānta* with *Bija* places him only in the previous sign. It is

2. *Ibid*, Vol. II, page 30. The reading given in *Trav. Arch. Series* is 12th *Mithunam*. Finding it a mistake I examined the facsimile preserved in the Archaeological Office, Trivandrum, and found that the date is 22nd not 12th. According to the system prevalent in the Tamil countries, 21st *Mithunam* was Saturday, but according to Kerala system 22nd was Saturday.

therefore evident that the Malabar astronomic system of the middle ages did not place Jupiter as behind as the Sūrya Siddhānta with Bija.

(2) Kollam 392 (Kali 4317) Sun 17 days old in Libra (17th Tula) Friday Anuraddha, Jupiter in Aries (Mēsha) (*Ibid*, Vol. I, No. XVI, p. 290).

Kali 1577024th day. It is verified and found that it was Friday, and Anuraddha.

	Sign	Degrees	Minutes.
Mean Jupiter (Parahita)	0	3	58
Apparent Jupiter (Parahita)	0	0	49
Mean Jupiter (Sūrya Siddhānta with Bija)	0	1	57
Apparent Jupiter (Sūrya Siddhānta with Bija)	11	29	0

Here Jupiter according to Parahita system is only 49 minutes not even one degree, old in the first sign; yet he was placed there by the then astronomers. But Sūrya Siddhānta with Bija places him only in the previous sign i.e. 12th sign. Since in 1216 A.D. (4317 Kali) the Kerala astronomic system made Jupiter stand in advance of the position given by the Sūrya Siddhānta with Bija, it is overwhelmingly evident that the Kerala systems in 1105 A.D. would not place Jupiter in the sign of Tula when he was nearly 11 degrees old (i.e. more than four months' journey) in the next sign even according to the Sūrya Siddhānta with Bija. So it is beyond the shadow of a doubt that our astronomers of the 12th century placed Jupiter not in Tula but in Vṛschika on 8th Mīna 1105 A.D.

Mr. P. S. Purushothaman NAMBUDRY wrote saying that he calculated the positions of Jupiter in the above six inscriptions, and found my calculations correct.

1116 A.D. *not suitable*.

"For myself," says Mr. K. G. SANKAR, "I contend that 1st March 1116 A.C. (4216 Kali) satisfies the data of the Tirunelli plate in all respects. . . It was a Wednesday, and the *nakshatra* Uttara Phalguni ended on that day shortly after daybreak allowing for an error of 1 ghatika at the most.

"Uttara Phalguni was therefore most probably the *nakshatra* of that day The 1st March 1116 A.C. therefore completely satisfies the astronomical data of the Tirunelli plates."

Mr. SANKAR admits that the required asterism came to an end before the day-break of 8th Mīna (Kali 4216, i.e. sometime on the 7th. What he says is that if we allow an error of 1 ghatika, it can be stated that the required asterism ended shortly after the daybreak of 8th Mīna. I admit that if we allow this error, the required asterism may be said to have lasted till 8 or 9 minutes after the daybreak. Let it be granted for argument's sake that on account of the astronomers' error the 12th asterism was believed to have lasted till 8 minutes after daybreak. The execution of the copper plate or the meeting assembled for that purpose is not likely to come to a close within 8 or 9 minutes. There seems no reason for supposing that they were very particular about completing everything before 8 minutes after day-break.

To know the exact time of daybreak or the space of 8 minutes was very difficult in those days. There was no necessity for such a trouble. They could do it at any time of the day or the early hours of the night, and date it Wednesday 8th Mīna 13th asterism instead of the 12th. The 13th asterism is as auspicious as the 12th. I need hardly say that if the required asterism does not stand at least for one hour on 8th Mīna, the requirement is far from being fulfilled. Further your *Parahita* system was exactly the astronomic system of the 12th century. We can therefore by no means allow an error and bring the required asterism to the day-break of 8th Mīna.

Parkara Iravi Sixth Century.

Regarding the date of the copper plate, Mr. Swamikannu PILLAI says : " I took the period from A.D. 949 to 1329 (380 years) and find only one year in which 9th Mina was a Wednesday, when Jupiter was in Tula and Moon in Uttara-Phalguni (*Eṭṭuchenṇa* is, I believe, 9th and not 8th). The year in question is A.D. 1020-21, when 9th Mina was Wednesday, 1st March 1021 A.D. In A.D. 1115-16, the next most likely year, 8th Mina was A.D. 1116. I do not find any other year in the period of four centuries (A.D. 950 to 1350) when 8th Mina was a Wednesday and when Jupiter stood in Tula rāśi and the Moon in *nakshatra* Uttara-Phalguni." " We may suppose," he again says, " that A.D. 1105 Wednesday March 1 was the day intended " (*Trav. Arch. Series*, Vol. II, pp. 31, 32, 50).

I have shown that these three dates given by the late Swamikannu PILLAI are wrong. Now the readers have the authority of Swamikannu PILLAI to show that from 950-to-1350 there is no date which will suit the copper plate under discussion, except the above three dates which have been shown to be wrong.

Now we see that there are only two dates which suit the Tirunelli plate, 571 and 666 A.D. It is therefore certain that the Tirunelli plate is not later than the 7th century.

We now find two dates each of which fulfils the requirements of both the inscriptions of Parkara Iravi Varmar, A.D. 526 and 1060 for the Perunna inscription, and 571 and 666 for the Tirunelli plate No. 2. The Perunna inscription must be either of 526 or 1060. We cannot take the year of 1060 because in that case the Parkara Iravi Varmar of the Perunna Inscription should be placed 400 years later than the other, the latest date which suits the other inscription being 666. That these two Parkara Iravi Varmars must be almost of the same period is, as has been shown, beyond question. We therefore come to the conclusion that 526 is the date of the Perunna inscription, and 571 that of the Tirunelli plate No. 2.

COUNTER ARGUMENTS.

Before proceeding further we shall do well to consider two opposing arguments.

1. *Dates of Inscriptions not trustworthy.*

" To this conclusion," says Mr. SANKAR, " Mr. Daniel opposes his astronomical argument. He says that the astronomical data given in the Perunna inscription (*Trav. Arch. Series*, Vol. II, p. 34) and the Tirunelli plate (*Ibid*, Vol. II, p. 31) of Bhaskara Ravivarman agree only with dates in the sixth century A.D., in a period of 5,000 years starting from Kali era Messrs. Ramanatha Ayyer and Joseph, no doubt, fight shy of the astronomical argument, and the latter urges that astronomical data need not be always correct or reliable. But he forgets that the burden of proof is on him to show why the astronomical data should be discredited, when they work out correctly, as they do in the present instance, and he has not even attempted to discharge that burden. We have no alternative but to disprove Mr. Daniel's statement, or, if we cannot do so, to accept his conclusion."

Mr. JOSEPH contends that the Tirunelli plate was wrongly dated. He assumes that this plate was executed in 1105. But as he wants to make 1105 the 58th year of Parkara Iravi he takes the King's year 43 given there " to be quite wrong." Further he says :—" If, however, Jupiter was actually in *Vṛschika*, we have to take the inscription to be wrong in that particular."

Mr. JOSEPH in the controversy very often referred to the Mampalli plate assuming the date Kollam 149 given there as unquestionable. How did he decide that it was not a mistake of *nūṛṇṇālpattompatu* (149) for *munṇūṛṇṇālpattompatu* (349) or *nanūṛṇṇālpattompatu* (449)? Further he accepted the dates given in the Kaviyoor inscriptions as correct. The authors of these inscriptions are not known. Such

being the case how can we be sure that the dates given there are correct? The whole history is built upon the assumption that the dates given in genuine inscriptions are correct. If we are not prepared to rely on such dates, we must burn all books on history as untrustworthy, and not a single historical fact can be proved.

The Tirunelli Plate particularly trustworthy.

We must bear in mind that the Tirunelli copper plate is not like the Kaviyoor inscriptions, on which Mr. Joseph does not hesitate to rely, and the other inscriptions of that type.

The Tirunelli plate was not executed by one or two unimportant persons but by a great council. This copper plate has not yet been published. Mr. Hirananda Sastri, the late Government Epigraphist for India, so kindly obliged me by sending me an inked impression of the plate. With his permission I quote a few lines :—

2. Tuättil Viyälanninra Mīna Nāyaṟu
3. eṭṭu chenra putanāṇṭa uttiratti nāl tirunelli mukkāl vaṭṭattu ninru cheyta kāriyamāvatu ti—
4. runellipperumālḱku niyatam pantirāṭṭikku munnānāliyāl arunāli oru nantā
5. Viḷakku (nu) amaichcha kiḷakkattiyappolachchērikkāl aṭṭikkuṭuttān mūttak-ūru vāḷkinra,
6. Kuñchikkuṭṭavarmanāyina aṭikaḷ virakuṟumpuraivār tiruvaṭi aṭṭikuṭu
7. ttaruḷiyār mūttakūṟṟil eḷunūṟṟuvarum paṇiyuṭaiya nāyaṇum...liṭa—
8. ākai veḷḷāḷaruṭai kuṟumpuṟayināṭu mūttakūṟṟinukkamañcha niḷalum paṇi—
9. yunnāṭumiṭaṅkaiyu (m) pirakitiyumuṭan kūṭi ninṟavirōtamāy.

Here we are given to understand that the copper plate under consideration was executed by an assembly composed of the Seven Hundred, the head of the servants, the Government Officers, the servants, the people of the country, the Iṭaṅkai Veḷḷāḷar, the Ministers, and presumably Kuñchikkuṭṭavarman, the King of Kuṟumpuṟaināṭu. Witnesses too are mentioned in the plate.

Mr. JOSEPH would further have us believe that the position of Jupiter was wrongly entered in this document, in case Jupiter was not in Tula on 8th Mīna 1105. I have clearly proved that astronomy was known in India from a very early period. (*Ind. Ant.* Vol. LIII, pp. 193-196, 219-221).

Further, I have proved that the Malabar astronomers of the middle ages were very accurate in calculating the position of Jupiter (*supra* pp. 30-32).

If at the time of the execution of this document there were astronomers here who could calculate the position of Jupiter, this great assembly would certainly have the best astronomers with them, and they would give the correct position of Jupiter. If we believe that this document is genuine, we cannot but rely on the date given there.

It is indeed unthinkable that such an assembly, when they executed a copper plate deed to be preserved for thousands of years, put down a wrong year of the Perumal, 43 for 58. Now millions of documents are executed in the world. Let Mr. JOSEPH point out a single document which is wrongly dated.

He says :—"Epigraphists know of a large number of inscriptions in which astronomic data are wrong in some particular or other. *Errare est humanum.*" If a man makes an inscription of a previous event he may make mistakes in dates. If we find the particulars of the date in a document wrong, we must conclude that it is a fabricated one. We know of no genuine document in the world which is wrongly dated. Although to err is human, nobody is ever known to have put a wrong date when executing a document.

To show that the date in a document may be wrong Mr. JOSEPH quoted Professor KIELHORN, "I have no doubt whatever," says Keilhorn while speaking about the Mampalli plate, "that Asvini has been quoted erroneously instead of Rēvati or Sunday instead of Monday" (*Epi. Ind.*, IX, p. 234).

The reply I gave him was this : It was *rēvati* till 10 p.m. on Sunday 15th Vṛschikam 149 Kollam, and therefore the asterism of the day is, I admit, *rēvati*. If the meeting, of which the Mampalli plate is the record, took place at 10 p.m. on Sunday, it must be dated 15th Vṛschika Sunday *Asvati*. It is usual among the Hindus of Travancore to begin a meeting at 10 or 11 in the night, so that it may be convenient for the people living far away to come. Kielhorn, who was not aware of this practice, thought that something was wrong in the date.

Counter Arguments.

(II) *Vallavaṅkōtai Synchronism.*

Now we shall consider the contention that this Perumal was of the 10th century.

Mr. A. S. Ramanatha AYYAR, in the *Indian Antiquary* September 1926, contends :—In an inscription of Parkara Irabi Varmar, Vallavaṅkōtai of Vēpatu is mentioned as a contemporary of Parkara Irabi and a Vallavaṅkōtai lived in A.D. 973 when Mampalli plate was executed. Parkara Irabi Varmar therefore was of the tenth century.

In the nineteenth century four kings named Rama Varma ruled Travancore. It is therefore probable that there were two Vallavaṅkōtais, one in the sixth century and another in the tenth. Nevertheless I admit that the above is a piece of presumptive evidence.

Now there is in the temple of Perunna, Travancore, a lithic inscription of the 14th year of Parkara Irabi Varmar which gives certain astronomic positions. There is not date suitable to these requirements near the time of Vallavaṅkōtai of the Mampalli plate 973 A.D. The nearest date which fulfils the requirements of the Perunna inscription is 1060 A.D. Vallavaṅkōtai of 973 A.D. cannot be the contemporary of Parkara Irabi, if we take A.D. 1060 as his 14th year.

Further in the Tirunelli platq of the 43rd year of Parkara Irabi Varman certain astronomic positions are given. Round about the 10th century there is no date which fulfils the requirements of this plate—the nearest date is 666 A.D. I have already proved that Swamikannu Pillai relied on an indisputably wrong assumption to fix the date of the plate in 1021 A.D. (*supra* pp. 28-29).

If we fix Parkara Irabi Varman in the 10th century so that he may be a contemporary of the Vallavaṅkōtai of that century, we shall have to suppose that the authorities of the Perunna temple carelessly made some mistake in dating the inscription named above. Further we shall have to suppose not only that the authorities of the Perunna temple, but also that the great assembly that met in the hall of the Tirunelli temple carelessly made some mistakes in dating, when they executed a copper plate deed—regulating the affairs of the temple—to be preserved for thousands of years. It seems extremely unlikely that such an assembly could make such mistakes. In the face of this strong evidence the presumptive evidence given above vanishes into thin air. Parkara Irabi Varman, therefore, cannot be of the tenth century.

Mr. SANKAR also, like Mr. Ramanath AYYAR, relies on the Tirukkōṭittānam inscription which mentions Parkara Irabi Varman and Vallavaṅkōtai, but takes a different view. He says :—"Mr. A. S. Ramanatha Ayyar has recently pointed out in the *Indian Antiquary* and elsewhere, that the Tirukkōṭittānam inscription of Bhaskara Ravi Varman (*Trav. Arch. Series*, Vol. 5, No. 61) refers to a festival instituted by Sri Vallabhan Kodai of Venadu (i.e. South Travancore). But he concludes that Sri Vallabhan was a feudatory of Bhaskara Ravivarman. This, however, is by no means certain. The inscription does not say that the festival was instituted in Bhaskara Ravivarman's time."

Mr. T. K. JOSEPH also agrees with Mr. SANKAR and says : "What I said was that the lithic inscription speaks of *paṇṭu koṭukkum ariichi* i.e. the rice that used to be given formerly or in olden times, and that therefore Vallavan Kōtai must have

lived *Paṇṭu* or prior to Bhaskara Iravi, in whose reign the inscription was engraved " (*Western Star*, Nov. 20, 1926).

I do not find it possible to agree with Messrs. SANKAR and JOSEPH, but with Mr. Ramanath AYYAR, who maintains that Vallavan Kōtai was the contemporary of Parkara Iravi. The inscription reads as follows:—*Pārakaran Iravi Varmarkku chchellā ninṇa yāṇṭiraṇṭ Mārttāṇṭar Nanṇuḷa Nāṭu Vāḷa Tirukōṭittānattu uttirakkaṇattārūnniḷalum paṇiyum kūṭi vēṇāṭuṭai chiri vallavaṅkōṭaivarumar amaichcha uttira viḷa āṭṭāṇṭum kumpai nāyirru kārtttiyai koṭi nāṭti niyati munnāḷi nāḷiyāl nūṇṇu nāḷi arikoṇṭu aṭṭi yūṇum kaṇiyum neyyum oṇṭāyppirāmaṇarai ūṭṭi pattu kūttum āṭichchu paṇimāṇiṭattiṅku paṇṭu koṭukkum ariyum koṭuttu.*

It is indisputable that the festival instituted by Vallavan Kōtai was celebrated by *Uttirakkaṇattār* and others when *Mārttāṇṭar* was ruling *nanṇuḷa nāṭu* in year of *Parkara Iravi*.

Messrs. SANKAR and JOSEPH seem to think that the inscription is only like a newspaper report stating that the usual *uttira* festival was celebrated in that year also. It does not seem probable that an inscription would be made simply to record the usual celebration of an annual festival, but rather it would record the institution of that festival. It is therefore certain that this was the first celebration of the *Uttira* festival instituted by Vallavan Kōtai. And he was the contemporary of *Parkara Iravi Varmar* unless we assume that the festival instituted by him was first celebrated many years after the institution. That is quite an unwarrantable assumption.

The word *Paṇṭu* (formerly) does not refer to the institution of the *Uttira* festival. The *paṇimāṇiṇam* (workers) were given the quantity of rice which was on such occasions given them in days of old (*paṇṭu*).

Now it is evident that this *Vallavaṅkōtai* was a contemporary of *Parkara Iravi*, and an ancestor of the *Vallavaṅkōtai* of *Mampalli plate*.

Having disposed of the counter-arguments let us proceed to reconcile the dates.
Reconciliation.

All the inscriptions can be reconciled, if we suppose that two *Parkara Iravi* Varmars, one after the other, ruled in *Keralam*, and that by the years some meant age and some regnal years, and some current and some expired. No one has yet reconciled these dates.

Let us take *Parkara Iravi I*. *Mīnam* 20 *Kali* 3626, when *Jupiter* stood in *Makaram*, was his 14th regnal year. On *Vṛschikam* 10 his 13th regnal year, *Jupiter* was in the same sign. There is no discrepancy in this, provided his ascension to the throne took place sometime between *Vṛschikam* 10 and *Mīnam* 20 in 3613.

So *Karkaṭakam* 3619 was the 6th regnal year. *Mēṭam*, it must be noted, is the first month of the year. In the 6th year *Jupiter* stood in *Iṭavam* and he was in that sign in the month of *Karkaṭakam* 3619. This group does not agree with any other. 43rd year inscription (*Tirunelli plate*) of *Parkara Iravi II* stands alone.

The 13th and 31st year inscriptions will agree each other, if we take the former as current and the latter expired and these should be taken as regnal years of *Parkara Iravi II*, because this group does not agree with the regnal years of *Parkara Iravi I*. Now the 43rd must be taken as the age of *Parkara Iravi II*.

The inscriptions of the 31st and 43rd years agree each other and those of the 31st and 33rd will agree each other, provided the birth of *Parkara Iravi* took place sometime before *Makaram*, says *Dhanu* and the inscription of the 33rd year was written sometime before that, says *Vṛschikam*. The inscriptions of the 47th and 58th years will agree each other, provided the latter was written sometime before *Dhanu*. Both these groups will agree each other if we take the former as current and the latter expired. Now the inscriptions of 31st, 33rd, 43rd, 47th and 58th years agree with one another, and should be taken as age inscriptions of *Parkara Iravi I*.

THE RECONCILIATION TABLE

PARKARA IRAVI VARMAR I

A.D.	K. Y.	Month and date.	Regnal year or age.	Jupiter.	Inscription.
518	3619	Karkatakam	6th regnal year	Itavam (2nd rāsi)	Tirukkakkara inscription, <i>TAS</i> III, p. 180.
526	3626	Minam 20	14th regnal year	Makaram (10th rāsi)	Perunna inscription, <i>TAS</i> , II, p. 34.
525	3626	Vṛschikam 10	13th regnal year	Do.	Tirukkakkara inscription, No. I (<i>Ibid</i> , p. 39).
516	3616	Makaram	31st age current	Jupiter in Kumbham ³ (11th rāsi)	Tirukkakkara inscription, <i>Ibid</i> , III, p. 183.
518	3619	—	33rd age current	Itavam (2nd rāsi)	Perunna inscription, (<i>Ibid</i> , p. 44).
528	3628	—	43rd age current	Jupiter in Mīna (12th rāsi)	Tirukkakkara inscription, <i>Ibid</i> , II, p. 47.
533	3633	Makaram	47th age expired	Chinnīnam (5th rāsi)	Tirunelli plate No. I, <i>Ind. Ant.</i> , Vol. XX, p. 290.
545	3645	—	58th age expired	Do.	Tirukkakkara inscription, <i>TAS</i> , II, p. 49.
553	3654	He died at the age of 67 or 68 and Parkara Iravi Varmar II succeeded.			

PARKARA IRAVI VARMAR II.

571	3671	Minam 8	43rd age	Tulam (7th rāsi)	Tirunelli plate No. 2, <i>TAS</i> , II, p. 31.
565	3666	Tulam	13th regnal year (current)	Itavam (2nd rāsi)	Tirukkoṭittānam inscription,* (<i>Ibid</i> , p. 36).
584	3685	Vṛschikam 20	31st regnal year expired	Dhanu (9th rāsi)	Tirukkakkara, (<i>Ibid</i> , p. 43).

3. In fact Jupiter was not in Kumbam, but in the beginning of the next rāsi, which, as has been already said, is due to the then undeveloped system of the Indian Astronomy.

Now we know that Parkara Iravi I came to the throne sometime between Vṛṣchikam 10 and Mīnam 20 in 3613 and Parkara Iravi II was born in 3628-9. Then to suit all the requirements we must assign the birth of Parkara Iravi I to sometime before Makaram 3586 and the coronation of Parkara Iravi II to 3654. So the senior came to the throne in his 26th or 27th year and died in his 67th or 68th year, and the Junior ascended the throne in his 25th or 26th year.

Historical Facts Corroborate :—

Perumanakkōṭṭattu Kēchavan Chaṅkaran of Tirukkākkara, the contemporary of Intukkōtai, was a witness in the 6th year inscription of Pārkaṛa Iravi I (*Trav. Arch. Series*, Vol. III, pp. 173, 180, 181), and therefore the latter was the successor of Intukotai.

Perumanakkōṭṭattu Chaṅkaran Tāmōtiran, another sādhu⁴ who was the successor of Sādhu Perumanakkōṭṭattu Chaṅkaran, the contemporary of Intukkōtai, was a witness in the 31st year of Parkara Iravi II i.e. in Kali 3685 (*Ibid*, II, p. 43). His predecessor, Chaṅkaran, as has been said, stood as a witness in the 6th year of Parkara Iravi I, i.e. 3619 Kali, 66 years back.

Velliyāmpaḷḷi Pōḷan Chāttan (Tirukkākkara) is mentioned in an inscription of Intukkōtai (*Ibid*, pp. 167, 173). Velliyāmpaḷḷi Chāttan Kumaran, the successor of the above named Chāttan, is mentioned in an inscription of Parkara Iravi I, 3626 (*Ibid*, Vol. II, p. 39).

Again Paṇṇitturutti Kṇṇan Pōḷan (Tirukkākkara) is mentioned in an inscription of Intukkōtai (*Ibid*, Vol. III, p. 167); while Paṇṇitturutti Pōḷan Kumaran, the successor of Pōḷan named above, in that of Parkara Iravi II, 3685 (*Ibid*, Vol. II, p. 43).

Now Velliyāmpaḷḷi Chāttan and Paṇṇitturutti Pōḷan were the contemporaries of Intukkōtai and their successors Chāttan Kumaran and Pōḷan Kumaran were the contemporaries of Pārkaṛa Iravi I and II respectively.

According to the above reconciliation table Pārkaṛa Iravi I ascended the throne in Kali 3613. In Kali 3611 Jupiter was in Chīṇṇam, and that was probably the sixteenth year (current) of Intukkōtai. If so the tenth year (expired) of Intukkōtai was Kali 3605 when Jupiter stood in Mīnam. He, therefore, came to the throne in Kali 3595. The Intukkōtai inscription of the lost date must be of some time between Kali 3595 and 3613.

In the 31st year age of Pārkaṛa Iravi I, (Kali 3616) Cherumaṇṇapūḷai Kōtai Nārāyaṇan paid a certain sum of money (*Trav. Arch. Series*, Vol. III, p. 183), and in the sixth regnal year of Pārkaṛa Iravi I, (3619 Kali), Cherumaṇṇapūḷai Kōtai Kēraḷan paid a certain sum of money (*Ibid*, p. 180).

The former in 3616 Kali and the latter in Kali 3619, when they made considerable gifts to the temple were, in all probability, majors, not below 18 years of age. In the 31st year of Parkara Iravi II (Kali 3685) they were alive together with an elder brother or cousin. Their names are given in this order :—Cherumaṇṇapūḷai Kōtai Ayyan, Kōtai Nārāyaṇan, Kōtai Kēraḷan⁵ (*Ibid*, Vol. II, p. 43). The names are, no doubt, given in the order of their seniority. The last two in Kali 3685 must be of 87 and 84 respectively, and the first at least of 87. It is particularly note-

4. "Sādhu," according to Mr. K. V. Subramany IYER, may be an officer of the king or priest who performs worship in the central shrine (*Trav. Arch. Series* Vol. III, pp. 163, 184). Offices during the days of old was, as a rule, hereditary. In Malabar Tāmōtiran who is the successor of Chaṅkaran is called Chaṅkaran Tāmōtiran.

5. The Hindus of Malabar are, for the most part, *marumakkathāyis*, who prefix to their names, the names of their maternal uncles. So these Ayyan, Nārāyaṇan and Kēraḷan were the nephews of Kōtai.

worthy that Kōtai Nārāyaṇan, who was elder to Kōtai Kēraḷan appeared with his gift three years earlier.

The corroboration of these facts with the dates assigned to Pārakara Iravi I & II is very important. All these cannot coincide by mere chance.

Further it should be observed that suitable dates for the Perunna inscription and the Tirunelli plate cannot be expected to fall in the same century by chance.

I have carefully examined the dates of these records for 5,000 years (B.C. 3,000 to A.D. 2,000). There are no dates which thoroughly fulfil all the requirements except in the sixth century. Kali 245 and 290 (twenty-ninth century B.C.) suit roughly the Perunna inscription and the Tirunelli plate respectively. In these circumstances no one can possibly contend that these requirements are fully satisfied in the sixth century A.D. by mere chance.

The inscription of Perunna and that of Tirunelli have fallen $(571-526 = 45)$ 45 years apart. If the difference were 12 years (a Jupiter's cycle) more, the requirements would not have been satisfied.

Suppose an astronomically suitable date for the Tirunelli plate of the 43rd year of age was 3683 instead of 3671. Then his year of birth is 3640 $(3683-43 = 3640)$. If we take 3666 as the 13th regnal year, he is supposed to have come to the throne in his 13th year which is improbable. Take 3678 as the 13th regnal year instead of 3666, then the 31st year will fall in 3697 and that will be the 99th, 99th, and 96th years of the three brothers or cousins, Kōtai Ayyan, Kōtai Nārāyaṇan, and Kōtai Kēraḷan respectively. It is, no doubt, highly improbable that there were three such extremely old persons in the family. It is therefore not by chance that the dates suitable for the above two inscriptions fell 45 years apart.

The Cochin Plates :—

In the 14th year of Parkara Iravi I Kovarthana Mattantan of Venatu was alive (Ante. p. 3). In the Cochin plates of the 38th year of Parkara Iravi Kovartana Muttankan of Venatu is mentioned as a witness. The donor of the Cochin plates therefore was Parkara Iravi I. If the year given is the age, the date of the Cochin plates must be Kali 3623 or 3624 $(522-3 \text{ or } 523-4 \text{ A.D.})$, if regnal year, it must be Kali 3650 or 3651 $(549-50 \text{ or } 550-1 \text{ A.D.})$.

Traditional Evidence :—

"A Jew of Parur," says Mr. JOSEPH, "told me that the Jews came first to Calicut in Anno Mundi (the Hebrew year) 3830, and to Cochin a thousand years later i.e. about A.M. 4830, and received the copper-plate grant still extant."

Mr. JOSEPH told me that the Jew who gave him this information was Mr. Eliyavu MOSES of Tattinkal house, Parur, a leading Jew of the place. I asked him about the dates of their copper plates, and he replied that he could not tell me anything definite without referring to a certain book which was in the possession of another Jew, Mr. M. Eliyavu MEYER. After a week I visited Parur again and met Messrs. Meyer and Moses. The latter, when asked regarding the conversation he had with Mr. Joseph, could not recollect what he had told Mr. JOSEPH, but said that the date given in the Hebrew book in the possession of Mr. MEYER must be correct, and that book agrees with my calculation. Mr. MOSES might have told Mr. Joseph that the Jews landed in Calicut in 3830 A.M. and after a thousand years received the copper plates.

As he was unable to give a definite reply to Mr. JOSEPH, he thought it wise to give a round number, 1,000. Mr. JOSEPH too readily took it as the tradition of the Jews, and began to build his argument on it. But Mr. MOSES did not think that Mr. Joseph would make such use of words spoken without reference.

Again Mr. JOSEPH :—"According to another Jewish tradition recorded by a Jew in the annual supplement to the Malayalam newspaper Mitawadi for 1926 page

20 column 2, Luz, an influential Cranganore Jew, who had been murdered by the Portuguese belonged to the 13th generation of the family of Joseph Rabban, to whom Bhaskara Ravi granted the Cochin plates. We know that the Jews are very particular about their genealogy."

Mosseh Pereyra De Paiva who visited Cochin and other places in A.D. 1686 has given a list of the prominent Jewish families with their respective genealogies but not of the family of Joseph Rabban *Vide* Notisias Dos Judeos De Cochim Mandadas Por Mosseh Pereyra De Paiva 5447 (1686).

There are only a few more than 400 families of Jews in Malabar, now living in five centres, Cochin, Ernakulam, North Parur, Chennamangalam and Mala. I did not go to Mala where there are about 30 families, but Dr. C. Mathai, the Medical Officer of the place, was kind enough to make enquiries for me. There is no tradition among the Jews of Malabar to the effect, that their copper plates were granted in the eleventh century or that Joseph Rabban's descendants of the thirteenth generation lived in the sixteenth century.

The following is the tradition of the Jews regarding the date under discussion. When I visited Parur, Mr. M. Eliyavu MEYER, mentioned above, showed me a Hebrew book entitled *Masbith Milhamoth* written by Mr. Habin Jacob COHEN, a Jew who visited Malabar. This was printed at Krakau in 1889 A.D. This author says that Joseph Rabban and many Jews came here in A.M. 4250 (A.D. 490) and refers us to another Hebrew work *Asiph* printed in A.M. 5646 i.e. A.D. 1886 (p. 146). According to my calculation copper plates were granted to Joseph Rabban in A.D. 522-3. The date of Joseph Rabban's arrival given in the Hebrew book named above is in complete agreement with A.D. 522-3, on which he received the copper plates.

Dr. Claudius BUCHANAN in A.D. 1807 says:—

"On my enquiry into the antiquity of the White Jews, they first delivered to me a narrative, in the Hebrew language, of their arrival in India, which has been handed down to them from their fathers The following is the narrative of the events relating to their first arrival:—

" the Royal grant was engraved on a plate of Brass. This was done in the year from the creation of the world 4250, (A.D. 490)" (Christian Researches, 8th edition, pp. 243-44).

If 490 is the year, in which Joseph Rabban the donee of the grant arrived, it must be, some one assumed, the year of the grant. He therefore put down 490 as the date of the grant. But it is not likely that a man would get extraordinary privileges in the very year of his arrival. It is quite reasonable to think that Joseph Rabban, who arrived here in 490, obtained the favour and estimation of the Perumal by 32 years of his activities in the land.

Mr. COHEN in the book named above says that Eben Sapir a Hebrew book gives two dates A.M. 4250 (A.D. 490); and A.M. 4141 (A.D. 381) as the dates of the grant (*Masbith Milhamoth*, pp. 145, 146). While giving different translations of the copper plates in question Governor Moens of the eighteenth century has given the translation delivered to him by Ezechiel Rabbi. In this translation Ezechiel Rabbi gives "3481 Kaliyugam" (A.D. 381), as the date of the document. (The Dutch Records No. 13. The Dutch in Malabar, p. 194). Mr. N. E. ROBEY, an old friend of mine, a respectable scholar in Hebrew, and the trustee of the Jewish synagogue, Jew-Town, Cochin. Introduced me to Mr. Isaac E. HALLEGUA, a leading Jewish landlord and his son Mr. S. I. HALLEGUA, B.A. Mr. HALLEGUA brought out a Hebrew manuscript book which was written in A.D. 1781 in which it is said that the copper plates were executed in A.M. 4139 Kali 3479 A.D. 379. These three gentlemen told me that they read Mr. JOSEPH'S paper but that they could not agree with his conclusion.

It can be readily understood, therefore, that the Jews have no tradition to the effect that their copper plates were granted in the eleventh century. The traditional dates are A.D. 379, 381, 490 and a date near to and after 490.

There is another traditional evidence preserved in a Malayalam song sung among the Jews.

Mr. JOSEPH published this Jewish song in the *Western Star*, December 18 1926. I shall quote it.

Verse (I) :

3. Aṭikkilum muṭikkilum avarpeṭāte attamiṭṭa negara niratti.
4. Muṭiventan talamakane mūvāyirattaṭṭunūra arivataṭe.

Verse (II) :

1. arivetaṭe āṇṭavare avarilirunna averavara osayōṭe.
2. Chittirattil kuri-chcha koṇṭa cheppēṭṭil eṭutikoṇṭu.

Second MS. :

- (I) 3. aṭukkikaḷum miṭakkikaḷum avar peṭāte arattamiṭṭu nekaraniratti.
4. muṭiventan talamakane mūvāyirattaṭṭunūra-ivetaṭe.
- (II) 1. arivetaṭe āṇṭavare avarilum avarave dose ōṭe.
2. chittiratti kurichchum koṇṭu cheppēṭṭil eṭutikoṇṭa.

The relevant lines are mūvāyirattaṭṭunūru arivetaṭe arivetaṭe āṇṭavare.

I had the opportunity to examine five manuscripts. Esther Cohen's manuscript (Jew Town, Cochin) :—

Mūvāyiratti arunnūru arivetāṭe arivetāṭe āṇṭavare.

Elichchi Manai's manuscript (Pallivatikkal House, Chennamangalam) reads as follows :—

Mūvāyiratti aṭannūr arivetāṭe āṇṭavane.

Abigail Madai's manuscript (Jew Town, Cochin) :—

mūvāyirattaṭṭannūru arivetaṭe arivetaṭe āṇṭavane.

M. A. Elias PHALLAK's manuscript (Jew Town, Cochin) :—

Mūvāyiratti aṭannūru arivetāṭe arivetāṭe āṇṭavane.

Eliyavu Moses' manuscript (Mr. Joseph's informant) :—

Mūvāyiratti aṭannūru arivetāṭe arivetāṭe āṇṭavane.

A MS. belonging to Mr. MOSES' niece.

Mūvāyirattaṭṭannūru arivetāṭe arivetāṭe āṇṭavane.

Mr. JOSEPH's translation :—

"Sprinkle 3,600 rice grains—In the year *arivetaṭe*" He took *āṇṭavare* for *āṇṭu-vare* and translated it "in the year". But it is not *āṇṭu-vare* but *āṇṭavare*. It is *ṇṭa* not *ṇṭu* in both the manuscripts, published by Mr. Joseph, as well as the manuscripts I examined. It cannot be contended that it is a mistake of *a* for *u*, because the reading of four manuscripts is *āṇṭavane* (Oh God which is the same as *āṇṭavare*. It is therefore not at all *āṇṭu-vare* (in the year). *Āṇṭavare* or *āṇṭavane* means Oh God. It is often used as an interjection. Of the six manuscripts I examined, five read *āṇṭavane* and one *āṇṭavare*. It is therefore evident that it is not *āṇṭu-vare* but *āṇṭavare* or *āṇṭvane*.

Of the six manuscripts five read *arivetāṭe*, and one *arivetaṭe*, the latter therefore is a clerical error. *Arivetaṭe* means sprinkle rice grains. But *arivetāṭe* does

not convey that meaning. Arivetāre is arivitāre. Arivitu or arivitār or arvitāre means this is the information. The foreigners like the Jews pronounce : ɾ as ʀ. Ariyamo (arīyamo), Paṛayamo (paṛayamo). The relevant lines must be translated as follows. "3,600. This is the information, this is the information, Oh God ! From him according to everybody's desire he got the copper plates beautifully engraved."

The year is 3,600. It cannot be the Hebrew year. It cannot but be Kali. In the earlier centuries Malayalees were using Kali era. *Kēraḷōḷpatti* the old history of Keralam says :—"In days of old there was no Quilon era. There was only Kali era,"⁶

That the Kerala Jews were occasionally using Kali era is proved by the Hebrew manuscript preserved by Mr. HALLEGUE and the translation of the copper plates which Ezechiel RABBI gave to Governor MOENS, which are just referred to. The copper plates in question are therefore assigned to 3,600 Kali. According to the astronomical calculations I assigned it the year 3,623 Kali. The poet expresses it in round numbers, or he was not aware of the exact date but the century.

Since the astronomical requirements of the Tirunelli plate and the lithic inscription of Perunna, during a period of 5,000 years are fully met in the sixth century only, it is abundantly evident that these inscriptions of Parkara Iravi are of that century. More than this, several historical facts corroborate with this finding. Further Joseph Rabban who received a copper plate grant from Parkara Iravi, according to the Jewish tradition preserved to us in certain Hebrew books, landed in Malabar in the year 490 A.D. and that is in full agreement with the date of the grant 523 arrived at by the astronomical calculation ; and an old Jewish song put down 3,600 i.e. 500 A.D. as the date of the grant. We are now led to a conclusion which is beyond the reach of a reasonable doubt.

6. Munne Kollamilla. *Kālamarivān kalwyēdḷḷi*. *Kēraḷōḷpathi* of Bharata Vilāsam Press, Trichur, 1901, pp. 47, 48.

REVIEWS

V. S. Sukthankar Memorial Volume (BULLETIN OF THE DECCAN COLLEGE RESEARCH INSTITUTE, Vol. V, 1943-44) Poona, 21st January, 1944, edited by Dr. V. M. APTE, M.A., PH.D. and Dr. H. D. SANKALIA, M.A., PH.D.; Published by Dr. S. M. KATRE, M.A., PH.D. for the D. C. R. Institute; Pages lvi+329; size :— $9\frac{3}{4}'' \times 6\frac{3}{4}''$; Price Rs. 16/-.

In his last public utterance Dr. SUKTHANKAR described the Mahābhārata as "deathless traditional book of divine inspiration unapproachable and far removed from possibilities of human constitution" and within a fortnight from the date of this utterance he was merged into this book of divine inspiration. The Mahābhārata is verily the garment of God woven by Vyāsa. This garment grown musty by centuries of human handling needed almost superhuman efforts to make it pearl-white or "as white as the jasmine flower" as the author of the *Arthasāstra* might have put it. To Dr. SUKTHANKAR goes the credit of devising his unique process outlined in his *Prolegomena* to the *Ādiparvan* by which he could bring this garment of God to its original lustre without injuring a single thread so that the divine inspiration behind the garment may radiate its energies unhampered for the spiritual health of the Indian people, if not for the entire human race.

Ever since Dr. SUKTHANKAR brought out his Critical Edition of the *Ādiparvan* the future of the *Mahābhārata* studies on scientific lines was well nigh assured. In fact it gave a direct stimulus to the Critical Studies of the Great Epic. Dr. SUKTHANKAR with his microscope of the Epic Textual Criticism explored many a secret of the tangled web of the Great Epic which had remained a mystery to individual scholars of the Epic and thus brought international honour and reputation to the Mahābhārata Department of the Bhandarkar Oriental Research Institute. It is no wonder, therefore, that the scholars working at the Deccan College Research Institute should resolve on the third day from his much lamented demise to pay their humble tribute to the memory of the departed savant by bringing out a Memorial Volume in his honour and the Volume under review is a direct testimony to the feelings of good will created by Dr. SUKTHANKAR during his lifetime not only by the depth of his critical scholarship but also by his amiable disposition and a genuine desire to be helpful to others. This Volume is also intended to commemorate the connections of Dr. SUKTHANKAR with the D. C. Research Institute first as an eminent member of the D. C. Reorganization Committee and later as the member of the First Council of its Management, and also of the Committee of direction, as stated by Mr. B. J. WADIA, the Vice-Chancellor of the University of Bombay and the present Chairman of the D. C. Institute Council in his excellent appreciative *Foreword* to the Volume. The publication of the present Volume side by side with the First Volume of the *Sukthankar Memorial Edition* on the First Anniversary of the demise of the great scholar shows in a remarkable manner that the spirit of research, of which Dr. SUKTHANKAR was a perfect embodiment has taken deep roots in the soil and is making rapid progress in the right direction as observed by the Vice-Chancellor. We have nothing but admiration for the excellent manner in which this co-operative project has been executed by the Editors, Dr. V. M. APTE and Dr. H. D. SANKALIA with the unfailing initiative, help and co-operation of Dr. S. M. KATRE, the Director of the Institute and with the blessings of the other authorities of this new but dynamic research body of the Bombay Presidency. The excellent and neat printing of the Volume so efficiently carried out in a short time by the Manager of the Government Central Press deserves the best thanks of all readers of the Volume.

It is not possible to do full justice to the valuable contents of the Volume within the space at our disposal. We may, however, indicate their nature and importance briefly. Besides the foreword and the short *Avant-propos* by the Editors there are 14 contributions in the Volume covering about 387 pages and as all of them pertain to some aspects of the *Mahābhārata* and its Epic Editor Dr. SUKTHANKAR we may aptly term it as a full-blown lotus of Mahābhārata studies with petals offered to the great Editor of the Greater Vyāsa. The Volume proper opens with a brilliant literary biography of Dr. SUKTHANKAR designated by its author Dr. KATRE as "*Vishnu Sitaram Sukthankar and His Contribution to Indology*." This article of no less than 50 pages is based on the published work of SUKTHANKAR and also on some unpublished material made available by SUKTHANKAR during his life-time and by his heirs subsequently. Dr. KATRE has digested all available material thoroughly in giving us this appreciative but factual survey of SUKTHANKAR's writings right from his Doctorate thesis up to his last public statement regarding the Mahābhārata a fortnight before his demise. Other contributions to the Volume are :—(1) *Epic Studies : Second Series* by Prof. F. EDGERTON (pp. 1-12). No. 1 deals with the Grammar and Syntax of the *Sabhā-parvan* edited by Prof. EDGERTON for the B. O. R. Institute and is as perfect and critical as the Professor's other linguistic studies ; (2) *Unpāṇinian Forms in the Critical Edition of the Mahābhārata* by E. D. KULKARNI (pp. 13-33). This is the fourth of a series projected by Mr. KULKARNI on the advice and under guidance of the late Dr. SUKTHANKAR and deals exhaustively with the question of Sandhi. This is one of the most brilliant papers in the present volume and takes a deserved place by the side of Prof. EDGERTON's opening article. (3) *Mahābhārata Manuscripts in the Travancore University Collection* by P. K. Narayan PILLAI (pp. 35-44) — Mr. PILLAI describes here 39 Mbh. MSS. in the rich MSS. Collection of the Travancore University containing about 17,000 MSS. A Catalogus Catalogorum of Mahābhārata MSS., if not their Descriptive Catalogue, if undertaken and published by a body like the Deccan College Research Institute would prove a boon to research students. Mr. PILLAI has done his job exceedingly well in describing the MSS. available to him ; (4) *Palaeographical Notes on an Ancient Palm-leaf Manuscript of Jayatīrtha's Prameya-Dīpikā* by Dr. M. G. DIKSHIT (pp. 55-56)—*Prameya-Dīpikā* is a gloss on the commentary of Anandagiri or Madhvācārya (c. A.D. 1200) on the *Bhagavadgītā*. Dr. DIKSHIT's palaeographical study of a palm-leaf of this *Prameya-Dīpikā* together with the chart at the end opens up a new line of research in dealing with our MSS. material. His object in this study is to prove that palaeographical changes noticed in palm-leaf MSS. have to be attributed to the writing material used for these MSS. Dr. DIKSHIT rightly stresses on the regional factor in the development of the script and suggests a detailed study of some ancient and dated MSS. as a necessary preliminary criterion for determining the age of undated MSS. (5) *Kinship Terms and the Family Organisation as found in the Critical Edition of the Mahābhārata* by Dr. Mrs. I. KARVE (pp. 61-148). This is an elaborate Sociological Study of the Mahābhārata on scientific lines. It throws a flood of search-light on the cultural picture of the Mahābhārata age, the roots of which were deeply embodied in pastoralism. The culture pattern of the Mbh. as disclosed in this study based on the critical text shows its unadulterated character. The versions of the text deviating from the critical text reveal the bias of regional cultures behind the text-modifications ; (6) *Iconographical Elements in the Adi Parva* by Dr. H. D. SANKALIA (pp. 149-161). This is a clear-cut study of the iconographic material as embedded in the critical text of the *Mbh*. Its value is greatly enhanced by its being compared with the material furnished by early inscriptions, coins and sculptures. Such a study provides a valuable check on the wild guesses of religious enthusiasts or enthusiastic literateurs in determining the relative age of the *Mbh*. and the *Purāṇa* texts. We look forward to a volume of such a study

from the pen of Dr. SANKALIA based on all the 18 parvans of the Critical Edition of the Mbh. when it is completed by the B. O. R. Institute. (7) *The Rgvedic Antecedents of the Dharma-Pāśa of Varuṇa in the Mahābhārata* by Dr. V. M. APTE (pp. 163-196).—In this specialized study of the *dharma-pāśa* of Varuṇa mentioned in the Mbh. and its Rgvedic antecedents Dr. APTE traces the origin and development of the *pāśa* conception in the Vedic literature and tries to correlate it with the conception of the *dharma-pāśa* referred to in the Mbh. His study points definitely to the *ṛta* of Varuṇa in the *Rgveda* as the *dharma-pāśa* of Varuṇa in the Mbh. We await with eagerness Dr. APTE's promised paper on the subsequent development of the *pāśa* conception in the Post-Rgvedic literature and the two epics. The present text of the Mbh. contains much gold dust washed away from the Vedic bed-rock of ancient Aryan concepts, which need careful and critical handling in the manner of the present paper. (8) *The Bhagavadgītā and the Gāthās of Zarathustra* by Dr. I. J. S. TARAPOREWALA (pp. 195-199).—The lovers of the *Bhagavadgītā* will be surprised to know the close parallelism of thought and expression pointed out by Dr. TARAPOREWALA between these two great Aryan scriptures, which teach the same fundamental truths almost in an identical manner. If all great minds think alike no wonder that Śrī Kṛṣṇa and Śrī Zarathustra, *avatāras* of the same divinity think and talk alike. The *Gītā* amplifies and supplements what is often given in the Gāthās in a terse sentence. This short but sweet paper relaxes the *dharma-pāśa* of Varuṇa slightly and puts us on the path of Knowledge, Love and Service. (9) *The Mahābhārata Data for Aryan Expansion in India* by Prof. T. S. SHEJWALKAR (pp. 201-219).—We agree with Prof. SHEJWALKAR that the creation of holy places is a sure guide to Aryan colonisation and we may add that a major part of the religious and cultural history of the Aryan Settlement in India is intertwined round these holy places or *tīrthas*. It was with a view to afford a systematic basis for the study of these holy places and centres of Aryan culture that the late Dr. SUKTHANKAR had entrusted a lady student from the Delhi University to prepare a thesis for her PH.D. degree on the Geographical Data of the Mbh. under his guidance but unfortunately Dr. SUKTHANKAR passed away within a year from the commencement of this undertaking. Prof. SHEJWALKAR's present study reveals that the Aryans had, before going to the east, crossed over into the Deccan. The Southern land-route lay along the east coast and through the centre of the peninsula. They discovered the west coast probably by the sea-route. They colonized the sandy tracts of upper Rajputana early. A great trans-Himalayan route was in constant use from these early times. We trust that these findings will be duly corroborated by other sources. (10) *Mahābhārata Citations in the Śābara Bhāṣya* by Dr. V. M. APTE and Mr. D. V. GARGE (pp. 221-229).—Śābara's *Bhāṣya* on the *Pūrva-Mīmāṃsā* contains many quotations in prose and verse from Vedic literature. The Post-Vedic verse quotations in this work are only 26, from which only 3 appear to have been borrowed from the Mbh. These are critically examined in this paper. Of these 3 quotations, two are definitely taken from the Mbh. according to the authors of the paper. (11) On the sources of *Villiputtūrār-Bhāratam* by Prof. C. R. SANKARAN and K. Rama Varma RAJA (pp. 231-265).—The influence of the Mbh. on non-Sanskrit literature of India needs to be studied in detail. We, therefore, welcome the present paper in which the Tamil work *Villiputtūrār Bhāratam* is compared with the Critical Edition of the Mbh. with special reference to the Southern versions. According to the authors of the paper the Tamil work in question must have had access to the several versions of the Mbh. through the Southern recension of the Epic. (12) *Translation of the Mahābhārata into Arabic and Persian* by Prof. C. H. SHAIKH (pp. 267-280).—This study is a part of the author's wider study of "Muslim interest in Sanskrit learning" to be published later. Right from the first century to the birth of Islam Sanskrit

and Indian works were translated into Arabic and Persian. This translation activity has not only enriched civilization but has rescued many a gem of world knowledge in the manner of the Chinese and Tibetan translations of Sanskrit works. The earliest effort to transmit the *Mbh.* lore was made in Pahlawi, from which it was taken into Arabic. Some Arabic and Persian Fragments of a work (before 11th cent. A.D.) containing the *Mbh.* legend are preserved in a Paris library. There is reason to believe that some of the legends in the *Shāh Nāma* owe their inspiration to the *Mbh.* Prof. SHAIKH thus brings his survey of the entire material right to the time of Akbar and Dārā Shuko, when the synthesis of the Hindu-Muslim culture was going on imperceptibly. The extract from Abul Fadl's introduction to the Persian version of the *Mbh.* and its translation, which concludes the present delightful paper makes instructive reading. We endorse Abul Fadl's remark that kings more than other people are in need of *history*, which is the product of God's world-compassing wisdom, and which is a means of warning those who care. (13) *The Illustrated Edition of the Razm Nama (Persian Version of the Mahābhārata) at Akbar's Court* by Prof. M. A. CHAGHATAI (pp. 281-329).—This paper, painstaking as it is, shows how Akbar sought the inspiration of his entire court in translating the *Mbh.* from Hindī into Persian under the superintendence of Naqib Khan Badāyune and Shaikh Sultan Thānesari. Abul-Fazl informs us that the *Mbh.* contains "one hundred thousand verses" which was called by Akbar "*Razm Nama*, the Book of the Wars". Muslim and Hindu artists and calligraphists collaborated to illustrate the *Razm Nama* and Dr. CHAGHATAI is to be congratulated for this present study of the illustrations of the *Razm Nama* which are a true reflection of the art at Akbar's Court. They also furnish very useful material for contemporary cultural history. There are copies of the *Razm Nama* which were possibly prepared from Akbar's copy for the nobles of his Court. It is of interest to note that Firishta used the Persian translation of the *Mbh.* made by Akbar's command for his history in writing about the Hindus and ancient India.

It will thus be seen that the *Sukthankar Memorial Volume* of the DECCAN COLLEGE BULLETIN, so rich in its varied contents pertaining to the *Mahābhārata* is the visible embodiment of a critical urge in Indian scholarship, caused by Dr. SUKTHANKAR's work of a life-time on the Great Epic and in the onward march of this scholarship it will have its due place when the history of the *Mahābhārata* studies on scientific lines comes to be written. The real *Encyclopaedia of Indo-Aryan Research* can be published by Indian scholars only on their completing at least one *lac* of critical studies based on the *Critical Edition of the Mahābhārata* and we hope that the Deccan College Research Institute will contribute its substantial quota to this *one lac* corresponding to the *Śata-Sūhasrī* of Maharṣi Vyāsa.

Poona.

P. K. GODE.

A Grammar of the Prakṛit Language based mainly on Vararuchi's Prākṛitaprakāśa by Dines Chandra SIRCAR, M.A., PH.D. University of Calcutta 1943. Royal 8vo x, 126. Price Rs. 2-8-0.

This short monograph is a companion volume to the *Select Inscriptions* edited by Dr. SIRCAR, designed originally as a supplement to its Prakrit portion to be appended to it. Fortunately before appending it to that volume the author decided to publish this work separately.

At the outset it may be remarked that although several attempts have been made by eminent scholars like LÜDERS to study the peculiarities of Epigraphic Prakrit, and a series of Aśokan studies in linguistics exist by SÉNART, HULTSZCH and LÜDERS, no connected grammar on descriptive lines of these records, covering

the whole of this literary record, exists. Recently a doctoral dissertation by M. A. MEHENDALE of the University of Bombay treats from the point of comparative linguistics the whole of the Brāhmī material in Prakrit inscriptions existing within India proper, following his excellent comparative grammar of Aśokan Inscriptions. Nevertheless a purely descriptive grammar of inscriptional Prakrit was still a desideratum, and the present work supplies a long-felt need by combining within itself the Prakrits according to Vararuchi, Pāli and the epigraphic dialects. The system followed is uniform. Each chapter of Vararuchi, consisting of his aphorism with an English translation and commentary, is followed by short notes summarising the preceding and giving also a summary of Pāli, and extracts from Hemachandra. The minor dialects described by Hemachandra and Purushottama, have been discussed either in the notes or in the Appendix.

As the work is meant for students reading Prakrit epigraphs, with a minimum of knowledge of Sanskrit and Middle Indo-Aryan development, the author wisely desists from combining a descriptive treatise with linguistic notes; for such an attempt will neither be linguistic nor descriptive, and thus fail in its main objective. It is, however, a matter for regret, that the editor has chosen, in this as well as in his *Select Inscriptions*, the antiquated transliteration accepted by the *Epigraphia Indica* and the Archaeological Survey of India. One could understand the conservative mind of the authorities which moves slowly and fails to take advantage of later or more scientific systems, thus enforcing on contributors the old cumbersome transliteration system of *ch*, *chh*, *ṛi*, etc. A radical change in this direction, bringing this branch nearer its sister groups, and allowing Middle Indo-Aryan linguistics to have a uniform, world-wide system, is very much to be wished for, and the author of both these works has missed an opportunity.

Taking everything into consideration, Dr. SIRCAR has rendered a real service to the Indian student world by publishing this work. Even professors, readers and lecturers in our Universities may take advantage of this book.

S. M. K.

Historical Selections from Baroda State Records, Vol. VII (1819-1825)—Sayajirao II (commenced) edited by Prof. C. V. JOSHI, M.A., Raj Daftardar and published by the State Records Department, Baroda; November 1943; size 6½" × 9½"; pages xii + (900-1091); price Rs. 2 (postage 6 annas).

The State Records in any country have always proved a reliable source of history and it is a happy sign of the times that the rulers of Indian States have thought fit to publish *selections* from their own records bearing not only on political history as such but also those which are likely to give us an insight into the cultural history of the different periods and of different provinces to which they belong. The publication of the Selections from the *Peshwa Daftar* in about 45 volumes under the distinguished editorship of our great historian Rao Bahadur G. S. SARDESAI has given a new stimulus to this activity and accordingly we have now before us the Selections from the *Baroda Daftar*, the *Gwalior Daftar*, the *Bavada Daftar*, etc. The *primum mobile* of this activity was, however, that great scholar historian RAJWADE, who spent a life-time in collecting and publishing the *Sources of Maratha History* in more than 20 volumes. RAJWADE'S spirit is now working through many scholars and institutions in Mahārāṣṭra. Another illustrious historian was Mr. KHARE, the author of many historical books and the editor of the *Patwardhan Records*. These noted names have kept the torch of history ever burning and the Government of H. H. the Maharaja of Baroda has contributed its own quantity of oil by the publication of its Records to keep the flame bright and beautiful. So far they have brought out the following volumes :—Vol. I (1724-

1768); Vol. II (1769-1789); Vol. III (1790-1798); Vol. IV (1799-1813); Vol. V (1813-1819); Vol. VI (1793-1800) and present Vol. VII (1819-1825) which covers the period of six years of the reign of Sayajirao II.

In the brief but critical Introduction Prof. JOSHI has given us an admirable analysis of the selections in the present Volume which helps the reader to understand the varied historical contents of the selections before him. Besides the English abstracts of the Selections, which facilitate the use of the Records even by readers not knowing Marathi, the Editor has added many other useful features such as *Glossaries* of difficult terms and words and *Indexes* (Marathi and English), not to say fine illustrations viz. (1) Picture of Sayajirao II; (2) Photo of 4 coins of Sayaji Rao II; (3) Photo of Bhadra Palace; (4) Photo of Bhimnāth Mahādeo Temple, Baroda; and (5) Picture of Chhatrasing Jamadar.

The documents bear testimony to the peaceful activities of a ruler assured of a settled and quiet life. The varied interests of the ruler as disclosed by those documents are noted by the Editor :—

“Religious ceremonies for the propitiations of stars, exchange of presents and greetings between the Maharaja and Company's Officers, encouragement of Maratha arts and crafts, pilgrimages and import of foreign luxuries are now engaging the attention of the Government. The Maharaja has made contact with the Socio-religious heads like the Mahant of Nathdwara (probably through Haribhakti), the descendants of Eknāth and two Acharyas, visiting Baroda. He also gives a dinner to the sons of the rich Wadia family of Bombay. He shows his fondness for wrestlers, dancers, fighting elephants, partridges, hunting leopards and quails and has kept a little zoo.”

The present rulers of Baroda are celebrated for their philanthropy and liberality. We are, therefore, pleased to find from document No. 141 dated *13th February, 1823* that the Maharaja Sayajirao II and his Government had contributed Rs. 5,125 to the Irish Famine Relief Fund.

These Records are a rich mine of information which may be explored by research students and put to varied uses. We have, therefore, to thank the Government of H. H. the Maharaja of Baroda and Prof. JOSHI for the publication of these *Selections* without a break according to a fixed plan.

Poona.

P. K. CODE.

vyādi-bhakti-taraṅgiṇī*

A hitherto unknown work ascribed to Vidyāpati.

By

G. C. BASU, Dacca University.

Vidyāpati, the famous poet of Mithilā, is known to have written books a dozen in number over and above his lyrical songs. They are the following : (1) *Saivasarvasvāsāra* or *Sambhu-vākyāvalī* ; (2) *Gaṅgāvākyāvalī* ; (3) *Dāna-vākyāvalī* ; (4) *Varṣa Kṛtya* or *-Kriyā* ; (5) *Vibhāgasāra* ; (6) *Bhūparikramā* ; (7) *Puruṣa-parīkṣā* ; (8) *Likhanāvalī* ; (9) *Kīrtilatā* ; (10) *Kīrti-patākā* ; (11) *Gayā-vākyāvalī* ; (12) *Durgā-bhakti-taraṅgiṇī*.

Of these twelve books *Varṣa-kṛtya* and *Gayā-vākyāvalī* are lost. *Kīrtilatā*¹ was edited and published by the late Mahamahopadhyaya Dr. Haraprasad SHASTRI. He had also procured a manuscript of *Kīrti-patākā* but as the script was very illegible and folios eight to twenty-nine were missing he returned it to the Durbar library of Nepal.² At the time when *Kīrtilatā* was being edited the present writer was a student reading in the Dacca University with Prof. SHASTRI, and had the opportunity of handling those MSS. as he did the work of the scribe in writing out the whole of the text of *Kīrtilatā* and its two introductions.

To this list of treatises ascribed to Vidyāpati we may perhaps add the name of another book so far unknown to the readers of and writers on this eminent author. All who have studied and written on Vidyāpati give the names of these twelve books only. Neither in the Catalogues of Sanskrit manuscripts nor in any published articles is to be found the name of the work we are going to discuss in this paper. Matters have become more complicated by the fact that there is even no such tradition to the effect that Vidyāpati had written such a book.

A manuscript has been found in the collection presented to the Dacca University by Sjt. Krishnadas Acharyya CHOWDHURY of Muktagāchā in the district of Mymensingh in Bengal. The name of the work is *Vyādi-bhakti-taraṅgiṇī* i.e. the River of devotion to the Serpent-God ascribed to Vidyāpati. The Catalogue number of the manuscript is K 531.I. The size of the manuscript is about 14" × 2.3". It contains 15 folios and 28 written pages, the outer sides of the first and the fourteenth folio being blank. Almost half the number of pages contains three lines, the remaining half containing four. The book is written in Sanskrit. It contains no date but from the evidence of script it seems to be about 125 years old.

The colophon runs thus—"Iti samasta-prakriyālakṣṇa bhupativara vīra Śrī Darpanārāyaṇa devena Samaravijayinā-jñapta Śrīvidyāpati-kṛtau Śrī-Vyādi-bhakti-taraṅgiṇyāṃ pramāṇa-taraṅgaḥ prathamah." From the above we have the facts that the name of the book is *Vyādi-bhakti-taraṅgiṇī*, the author is Vidyāpati, and that he wrote it at the order of King Darpanārāyaṇa.

It is rather curious that a single manuscript of a book written by a Maithili author should be found in a district in East Bengal and nowhere in Mithilā proper or in any other part of Bengal. This raises some suspicion about the genu-

* I am indebted to Mr. S. C. BANERJI, M.A., Keeper of Manuscripts, Dacca University Library, for drawing my attention to this manuscript. My thanks are due to Mr. BANERJI and Dr. R. C. HAZRA, Lecturer, Dacca University, for much information and suggestions.

1. *Hṛīkeś Series, Calcutta, No. 9.*

2. *Ibid.*

iness of the book, but we give, all the same, an account of the work which may inspire further searches for and researches on the complete list of the works of Vidyāpati, the celebrated author of north-eastern India.

The book contains, as the name suggests, an account of the worship of the Serpent-*Manasā* so much prevalent in Bengal. It is written in Sanskrit, but the version is so corrupt that nothing more than a general discussion on the more important points can be attempted at present.

First, the authorship of the work. In the colophon the name of Vidyāpati is expressly stated. The author says that he wrote the book at the order of the Great King and Hero Śrī-Darpanārāyaṇa-deva. It is well known that Darpanārāyaṇa is the "viruda" of a king named Nara-Siṃha or Nṛ-Siṃha of the Kāmeswara dynasty of Mithilā.³ Vidyāpati has mentioned his name in the colophon of *Dānavākyaṇali* and *Durgābhaktitarāṅginī*.⁴ He was the son of Hara (or Hari)-Siṃha, son of Bhava-Siṃha. Deva-Siṃha was another son of Bhava-Siṃha, and therefore Deva-Siṃha's son Sivasīṃha Rūpanārāyaṇa, the well known patron of Vidyāpati mentioned in Padāvali literature was the cousin brother of Narasiṃha Darpanārāyaṇa. Thus it is not at all difficult to identify the king mentioned in the colophon.

The term *prakriyālaṃkṛta* has some significance as this can be put forward as a good piece of evidence, for the proof of the genuineness of the work. If any one had tried to forge the name of Vidyāpati and his patron it would be too much for us to expect that his cautiousness even with regard to the "viruda" used before the name of the King would go so far, for, we find that the authors referring to this particular Maithila dynasty generally use the term "samastaprakriyālaṃkṛta" or "virājamāna" the latter occurring of course much more frequently than the former.⁵ Moreover, the colophon of *Durgābhaktitarāṅginī* shows a striking similarity of expression.⁶

Durgābhaktitarāṅginī—iti * * * samastaprakriyālaṃkṛta nṛpativara vira-Siṃha-devānām Samara-vijayinām kṛtau Śrī-durgā-bhaktitarāṅginī paripūrṇā.

Vyāḍibhaktitarāṅginī—See above

Here the difference between the wordings of the two colophons are only (1) nṛpati and bhūpati, and (2) those which arise necessarily for some reason or other.

In our book there is, just before the colophon, a sentence which is of extreme importance. It runs thus:—*anukṛtaṃ yad-anyam-durgābhakti-tarāṅginyām-anusandheyam grantha-gaurava-śāṅkayātra punar-na likhitam-iti*. The points which have not been mentioned (here) should be searched in *Durgābhaktitarāṅginī*; they are not repeated here owing to the apprehension that the book may grow too much in bulk. The term "anusandheyam" deserves special attention because it is a general custom with the writers on Smṛti that where one refers to a work which is none but his own, he generally uses the term "*anusandheyam*"⁷ without naming the author. *Durgābhakti-tarāṅginī* is a known work ascribed to Vidyāpati, and if the interpretation of the word 'anusandheyam' is correct there is little doubt that

3. R. D. BANERJĠ—*Bāṅgālār Itihās*—Pt. II. p. 201.

4. JASB, 1915, M. CHAKRAVARTI, p. 425, f.n.

5. See JASB, 1915, M. CHAKRAVARTY, f.s., pp. 416, 419, 425 etc.

6. One should also be conscious of the other side of the argument. The similarity of name and colophon of *Dbhī* and *Vbhī* may also suggest that the author of the latter had copied from the former as it was more or less known in Bengal.

7. See (a) *Smṛti-tattva*, Raghunandana Ed., Jivānanda, I, pp. 6, 15, 59, 68, 113, 134, 150, 152, 165, 167. (b) Govindānanda's *Suddhi-Kaumudī*, pp. 160, 162, 174, 325. (c) *Śraaddhakaumudī*, BI Ed., pp. 85, 323, 340, 342, 348, 380. (d) *Varṣakriyā Kaumudī*, BI Ed., pp. 20, 22, 111, 216, 236. (e) *Durgotsava-viveka-Sūlapāni*, SSP. pp. 2, 7, 8, 15, 21, 23 etc. etc.

the book in question also was composed by the same author as the condition stated before is completely fulfilled.

The word "punah" again is not without a special meaning here. If the two treatises were not from the same pen this word could not have been used here. What the author wants to say seems to be that he has written a book named *Durgābhakti-taranginī* before, the details which are common to both the books need not be repeated here and readers are referred to the former book. Thus the word *punah* serves as a corroborative evidence which cannot be totally ignored.

It is also worth mentioning that the similarity of the names of the two books is not without some significance. The Smṛti-writers had a practice of naming their works in a particular way. Some used the word *nirṇaya*, some *tattva*, some *viveka*, and so on. Thus Raghunandana compiled an encyclopaedic work styled *Smṛtitattva* divided into twenty-eight sections called *tattvas*.⁸ (2) Sūlapāṇi wrote several small treatises on topics of Dharmaśāstra, and intended them to form part of a huge digest called *Smṛti-viveka*. Fourteen such works are known to have been so written with titles ending with the word *viveka*.⁹ (3) "At least eleven works of his (Vācaspati) bearing the title *Cintāmaṇi* are known."¹⁰ (4) "All these works (of Govindānanda) appear to have formed part of a general digest called *Kriyākaumudī*."¹¹ Similarly Vidyāpati who may be assured to have written two or more books on the same subject viz. worship, had probably adopted the form 'bhaktitaranginī' for naming of his works. The similarity of the names, therefore, tends towards the correctness of our proposition.

The name "Vyāḍī" also is peculiar. In Bengal the names *manasā*, *viṣaṇ* and *Padmā* are popular. In the body of the book in question the first two names and *surasā* are given, but in the nomenclature a highly classical name has been used. This does not prove anything definite, yet some amount of suspicion is raised by the name, not prevalent in Bengal, that the book was not written in Bengal.

The question whether so learned a scholar and great a poet as Vidyāpati would ever care to write a treatise on the worship of *Manasā* who as not a Puranic deity but a mere "Laukika" may be dismissed without difficulty, because, the worship of this serpent deity and songs about her have been prevalent in Bihar from a pretty long time.¹² *Manasā* might have been originally a "Laukika" deity as opposed to Pauranic but her cult had long been included in the *Purāṇas* and in the Smṛti literature. As this is more or less a known point I would only refer the reader to the article in the 'Viśva-koṣa' where copious extracts are given from *Brahmavaivarta Purāṇa*, *Padmapurāṇa*, etc. The *Bhaviṣya Purāṇa* is quoted by Jimūta Vāhana in *Kālaviveka* (pp. 413-4) where an account of *Manasāpujā* has been given; and in *Sambatsara-pradīpa* of Halāyudha and in *Tithitattva* of Raghunandana there are accounts of this worship. In these works it is found that *Manasā* has been, in course of time, identified with the *Śakti* or *Durgā*. In the *Padmapurāṇas* or *Manasā Maṅgalas*, the popular narrative poems on *Manasā*, current in Bengal it is mentioned that the obstinate *Cāndsaodāgar*, the worshipper of *Siva* adored *Manasā* only when it was declared by some divine voice that *Manasā* was none but the "Śakti" herself. In the present book there is an elaborate account of the "*Pramāṇas*" (or sanction) of worship, and the author freely quoted from various authorities on orthodox Brahmanical systems, and discriminates between the "Laukika" or Popular traditions and the sayings of the authorities on the standard form of worship. The book also deals with *Manasā* worship as an equivalent to the Puranic *Śaktipūjā* for he quotes Gauḍa-Mithila-Prācyādi-Kṛtyasāra saying—*Pratimāyāñca citre vā maṇḍane vā ghaṭe'pi vā ; pūjayet surasām durgāvad*

8. KANE, *History of Dharmaśāstra*, p. 416.

9. *Ibid.*, p. 394.

10. *Ibid.*, p. 399.

11. *Ibid.*, p. 415.

12. I have not seen this literature myself, but have heard about it from a Bihari Panditji. I hope to gather more information in future.

bhuvi-sādhakāḥ (Fol. 46). That the worship should be accompanied by "āmiṣa-*vali*" or animal-sacrifice as in orthodox Śaktipūjā is expressly stated in the following lines :—Durgāvad-ity-ti (bhi ?)-deśād (dheyād ?) -vali-dānācāraḥ tathā ca nirā-miṣeṇa yo'bhyarcej-jaga[d]-gauriṃ muneh priyāṃ, tasya sambatsare hānir-nityaṃ syāt-tu pade pade. Etena ya[t] chāgādi validānaṃ nāstīti Viśārādādibhir-uktaṃ tad-dheyāṃ. These clearly indicate that by the time the book was composed the manasā cult had attained the same amount of recognition of Śakti herself, and the system of worship had got very much mixed up with that of the Puraṇic deities. If in Vidyāpati there was at all a bit of a Smārta and if he could have written a book like *Durgābhaktitaraṅgiṇī* there is no reason why there should be any objection in ascribing to him the authorship of Vyādhībhaktitaraṅgiṇī.

The book has been given the shape of a regular Smṛti work. We have got here two parts called Pramāṇa taraṅga (section on principles and sanctions) and the Pra-yoga taraṅga (section on practices of worship). As usual, in these twenty-six pages a number of authorities are quoted on "pramāṇa" or authority. If any of these texts or authors quoted are definitely proved to be later than Vidyāpati our position regarding the authorship of the work becomes rather difficult. Below is given a list of those authors and texts with an approximate idea of their time so far known. We divide the list into two parts,—the first comprising works which are definitely known to be old, and the second comprising those which are comparatively late and therefore may create some difficulty :

[A] (1) Kāśi-khaṇḍa ; (2) Jaimini gṛhasūtra ; (3) Viṣṇu Purāṇa ; (4) Devī Purāṇa (twice) ; (5) Amara-Koṣa (twice) ; (6) Garuḍa Purāṇa ; (7) Brahma Pū-rāṇa (twice) ; (18) Brahayāmala (tantra) ; (9) Another tantra (no name given, only "tantrāntare") ; (10) Haya-śirṣa Pañca-rātra (tantra) ; (11) Bhaviṣya Purāṇa (twice) ; (12) Kālī-hṛdaya (tantra) ; (13) Another tantra (no name given) (14) Prapañca-Sāra (tantra) ; (15) Agni-purāṇa ; (16) Nārada Smṛti ; (17) Viṣṇudhar-mottara ; (18) Bhaṭṭabhāṣyam (Kumārila Bhaṭṭa) ; (19) Mahā-Kapila Pañca-rata (tantra) ; (20) Gobhilaputra.

[B] (1) Gauḍa-Mithila-Kṛtya-sāra- (mentioned twice)—There is a book named Kṛtya-sāra quoted by Varopamāna Upādhyaya in his Daṇḍaviveka. The literary activity of Vardhamāna, according to M. CHAKRAVARTY (*JASB* 1915) extended in the third and partly in the fourth quarter of the 15th century. It may be that this book is the same as this Gauḍa-Mithila-Kṛtya-sāra.

(2) Śuddhi-dīpikā—A book on astronomy by Mahintāpanīya Śrinivāsa. His Gaṇitacūḍāmani has been referred to in Sarvānanda's Tīkāsarvasva and Rāyamukuta's Pada-Candrikā. So he belonged to 1159-60 A.C. (*JRAS*, S. C. BANERJI, 1928, p. 900 ; *IA*, 922, pp. 146-8).

(3) Hemādri—The book referred to is probably a part of Caturvarga Cintāmani, a treatise on Smṛti. KANE places it between 1260 and 1280 A.C. (*History of Dhs.*, KANE, p. 357).

(4) Gauḍa-Maithiya-Prācyādi-Kṛtyasāra—It is probably the same as Gauḍa-Mithila-Kṛtyasāra. See under (1). The deity is named Surasā.

(5) Viśārada. A writer on Smṛti. He is placed in a period earlier than 1500 A.C. (KANE—Index).

(6) Chandoga-pariśiṣṭa (or Karmapradīpa or Gobhila Smṛti)—This book has been referred to by Vidyāpati in his Gaṅgāvākyāvalī (*JASB*, 1915, p. 390). Nārāyaṇa, a commentator on this book mentions the name of King Jayapāla under whose patronage he wrote. This Jayapāla may be either of Kāmarūpa or of Gauḍa. In any case he is not later than the 10th century A.C. (See *IA*, Vol. XIII, R. G. BASAK, Silimpur Stone Slab Inscription, p. 287).

(7) Śrīpati—AUFRECHT has mentioned a number of Śrīpatis. We cannot ascertain which Śrīpati is meant here.

(8) *Nirṇayāmṛta*—A book on Dharmaśāstra, probably that of Allāranātha. It is said to be composed at a time before 1500 A.C. and later than 1250 A.C. (KĀṆE, Index).

(9) *Dvaita-nirṇaya*—Written by Vācaspati Miśra whose time of literary activities extended between 1450 A.C. and 1480 A.C. (JASB, 1915, M. CHAKRAVARTY, p. 400). This statement is corroborated by KĀṆE (p. 405).

(10) *Sāradātilaka* (twice)—It is a famous tantra work. Mr. S. C. BANERJĪ, Keeper of Manuscripts, Dacca University, informs me that the D. U. collection possesses a manuscript dated 1439 A.C. (MS. No. 4608).

(11) *Kṛtya-Cintāmaṇi*—One *Kṛtya-Cintāmaṇi* is quoted by Vācaspati in his *Śrāddha-Chintāmaṇi*. It may be that this *Kṛtya-Cintāmaṇi* is of Caṇḍeswar of Mithilā who was pre-Vidyāpati. The author may also be Vācaspati himself (see under *Dvaita-nirṇaya*, No. 10).

(12) *Rāghava-bhaṭṭa* (twice)—Mentioned by AUFRECHT as commented on *Sāradā-tilaka*. His original work was *Kālitattva* or *Kālirahasya*. He is quoted in *Śāktānanda-taraṅgiṇī* of Brahmānanda, preceptor of Pūrṇānanda who is known to have written a book *Śākta-krama* in 1572 A.C. *Rāghavabhaṭṭa*, then does not seem to be later than the end of the 15th century.

(13) *Gauḍādi-saṃgraha* = uncertain, could not be identified.

(14) *Yajña-Pārśva* (twice). (1) *Sāradātilake sthaṇḍila-lakṣaṇaṃ Yajñapārśvaḥ*; (2) *Homa-svāhāntam-āha Yajña-pārśvaḥ*. It is a controversial point whether the term *Yajñapārśva* signifies a section of a book or only a person. It is known on the fifteenth *pariśiṣṭa* of *Chandogapariśiṣṭa* of Kātyāyana. (AUFRECHT). There is a commentary of Nārāyaṇa on it who is not later than the 10th century). (See under *Chandogapariśiṣṭa*, No. 6). In the first of the sentences quoted above, probably the section of the book is referred to. In the second we have *āha Yajña-pārśva*. This seems to be a person who cannot be identified.

(15) *Mantra-tantra-prakāśa*—It is quoted in *Śāktānandatarāṅgiṇī* of Brahmānanda (see under *Rāghavabhaṭṭa*, No. 13).

(16) *Hari-Śarmā*—He is mentioned as a bhāṣyakāra on *Pāraskara Gṛhya* in *Prāyaścitta-tattva* of Raghunandana. KĀṆE gives his time on "before 1500 A.C." (KĀṆE, Index).

(17) *Sānti-dīpikā*—It is quoted by Raghunandana. It is a work on *Smṛti*.

An attempt has been made above to give a rough idea of the time of almost all the authors and books referred to in the manuscript. About only one or two could not be identified. From this account it may be assumed tentatively that no work or author is very far off from the time of Vidyāpati. We may say, therefore, that these quotations, on the whole, do not stand in the way of our conclusion that Vidyāpati was the author of the book in question. If, in future, the authorship of Vidyāpati is definitely proved, this work itself may again help us in ascertaining the time of this author and of the various others quoted here. But at present we must not go very far.

There is one point in the text which helps in the assumption that the work represents a tradition prevalent outside Bengal. In folio No. 5b occurs a line :—*Vaiśākhādiṣu māseṣu pūjaye[t] sarva śāntidāṃ*. Etena śrāvaṇa-māsy-eva pūjanam-iti matam-apāstaṃ. "One should worship the giver of all peace in Vaiśākha and other months. By this the opinion that it is only in Śrāvaṇa that the worship should take place is refuted." Here may be examined the statements of the Bengalee *Smṛti* writers :—

(A) *Jīmūta-vāhana* writes in *Kāla-viveka* :—(1) *Śrāvaṇe māsi Pañcamyām śukla-pakṣe ... (BI series, p. 413)*. (2) *Supte Janārdane Kṛṣṇe pañcamyām bhavanāṅgane ; pūjāyen-manasādeviṃ snuhi-viṭapa-Saṃsthitām (Ibid., p. 414)*.

(B) *Sūlapāṇi* in Sambatsara- pradīpa refers to manasā worship as śrāvaṇa-kṛtya. (1) Śrāvaṇe māsi pañcamyāṃ kṛṣṇa-pakṣe (D. U. MS. No. 4632, fol. 12a). (2) Kṛṣṇa pakṣe tu pañcamyāṃ kṛṣṇa-svāpād-anantam ; pūjāyān etc. (*Ibid.* Do.)

(C) Raghunandana in Tithitattva—Supte Janārdane etc. (*J. Vidyā*, p. 198).

All these authors point to the tradition of worshipping Manasā either in Āśādhā or in Śrāvaṇa. But this work removes this repetition, and recommends that even in the months of Vaiśākha etc. one may worship Manasā. It may not be too much to suggest that this points to a tradition current outside Bengal. Whether it was prevalent in Mithilā or elsewhere is worth investigating.

There is another point mentionable as it hints at the fact that the system of worship described here does not belong to Bengal proper. In folio No. 2a a statement runs thus—Te ca prasiddhā loka-vādā yathā Lakṣmīdhareṇa naur-dattā yasmān-madhukarābhidhā, tasmān manoramāṃ nāvam kṛtvā tatra prapūjāyēt. "There is a well known popular tradition that as by Lakṣmīdhara was given (back) a boat named Madhukara, a charming boat should be made, and one should worship (the deity) there."

In the Bengali kāvyas the worship is described to take place, after the return of Lakkhindra to life, on land and not in a boat. Moreover, in the Manasā worship as prevalent in Bengal the custom of worshipping in a boat is absent.¹³ This point is worth considering.

In the text there occur two words which deserve attention. One is "Gauhārī," the name of the boat in which the worship takes place ; another is "Vicitrā" mentioned twice.

So far we know, there is no such word as *Gauhārī* in Bengali. There is one word 'Gohārī' occurring in Kṛṣṇa-kīrtan and other MB texts but the meaning there is quite different. In the *Hindosthānī Dictionary* of J. T. PLATTS one of the meanings of the word is given as "a dealer in precious stones." This can well be the name of "Sacred" or "Royal" boat. The discovery of a better meaning would improve matters, but here we are concerned only with the fact this word never occurred in the literature of Bengal.

About the other word we are still more at a loss. None of the ordinary classical meanings fits in here. The two sentences run thus—(1) mṛṇmayīm pratimāṃ kṛtvā devatādyaiḥ samāvṛtīm ; ghaṭṭayitvā vicitrāṇa pūjāyān gītanartane. (2) Dakṣiṇāṃ vidhivad dattvā gīta-vādyaiḥ samāpayet ; Darśanācca vicitrāyā vāgdr̥ṣṭiharaṇaṃ bhavet. The *ca* in the first sentence suggests clearly that Vicitrā is something different from the main deity, but it is worshipped along with her. The phrase "vāgdr̥ṣṭiharaṇaṃ bhavet" reminds the reader of the Manasāmaṅgal Kāvya in which is described the viṣa-dr̥ṣṭi (poisoned look) or the "viṣṇayane cāoya" (going with a poisoned look) of Manasā about which even Śiva, her father, and Jaratkāru, her husband had had very bitter experience. They lost consciousness at this look and revived only when Manasā cast her ambrosian glance (amṛta dr̥ṣṭi). It seems that here is described something similar to it, but the term vicitrā in connection with Manasā worship is unknown in Bengal.

There is a name which also seems to be new to the readers of Bengali Manasā-maṅgal. The author directs that along with others the pictures of *rajakī* and *sugandhā* should be drawn (see text given below). *Rajakī* may be easily identified with Netā Dhopānī of Manasā-Maṅgal Kāvya, but the name of Sugandhā is not to be found anywhere in middle Bengali literature. This also suggests that along with the tradition of Bengal some other local tradition had been mixed up.

All these facts tend towards the conclusion that this book was composed somewhere outside Bengal.

13. After the worship is over a boat-race takes place in which the image of Manasā is placed on the front of the boat.

This much for the identification of the author. Now about the text.

As is a general rule with Smṛti works it had two parts, viz. the Pramāṇataraṅga and the Prayogatarāṅga, i.e. the section on sanction of authorities, and the section on practical worship. At the end of the first part we have the sentence—Iti Śrī-Vyāḍī-bhakti-taraṅgiṇyām pramāṇa-taraṅgaḥ ; and the second part which has only one folio left, the others being lost, begins thus—Om Manasā devyai namaḥ Smṛtyāgamapurāṇādi lokavādānūsārataḥ vyāḍīpūjā vidhānasya prayogo likhyate'-dhnū. The handwriting of this folio is the same as that in the first section ; even the mistake or deficiency in writing one or two word combinations is the same. Moreover, it is important to note that the word vyāḍī is used in a more or less formal way in both the parts. It is deplorable that almost the whole of the prayoga section is lost.

It has already been stated that the text is so corrupt that it seems impossible to print it in the present state. As the major portion of the book contains quotations from other works it has been thought desirable to publish the text after comparing the lines quoted with original sources and correcting at least the obvious mistakes.

Only the beginning and end of the book are the author's own composition. The colophon has been given before, here is given the portion occurring towards the beginning without any modification, grammatical or otherwise :—

Prthivyaḥ prati-loke ca loka-vādā itiritāḥ. Te ca sarvabhūta-dākinyādyati-śāntya[r]tamaḥ lauki(h)kau sadha mantrādayo viśahari-maṅgala-caṇikā-gātādayasca. Te ca prasiddhā loka-vādā yathā(h) Lakṣmīdhareṇa naur-dattā yasmān-madhukarābhidhā ; tasmān manōramāṇaṁ nāvaṁ kṛtvā tatra prapūjayet. Mṛṇmayim pratimāṁ kṛtvā devatādyaiḥ samāvṛti ; ghaṭṭayitvā vicitrāṇca pūjāyeta gīta-nartanaiḥ. Devatādyai-rityatṛadyasābdāt siddhā-nāga-kinnara-gandharva-yakṣa-rākṣasādināmapi parigrahasaḥ. Pūjyātā cōktā. Adhamā-viśa-hastā nau catvāriṁśas-ca madhyamā ; uttamā ṣaṣṭi-hastā ca śata-hastottumottama. Caturdaśa karānyūnānaukā parikṛitā ; sannidhau bhūta-nāthasya vipulāyās-ca nartane. Ye ye samāgatā draṣṭum taṁs-tu tatsthāna prapūjayet. Brahmaṇaṁ Mādhavaṁ Rudraṁ Vāṇim Lakṣmim ca Pārvatīm ; Kārtikeyaṁ Gaṇeśaṇca Kāliyaṁ Pannagāṣṭakaṁ. Jaratkāraṁ-Astikaṇca martye candradharaṁ tathā ; tat-patnīm vipulāncāpi Śrīdharaṁ dvijaṁ tathā. Yaśodharaṇca daivajñaṁ karṇa-dhāraṇca durlabhaṁ ; agre Gaṇeśaṁ naukāyāḥ pattinaṣṭau manohaṁ. Bhāṇḍārīnāncāstradharān madhye'gre mūlake tathā ; lekhyāṁ rajakiṇcaiva sūgandhāṇca tathā'parāṁ. Suresvaraṁ tathā Durgāṁ devyādikṣu samantataḥ ; Indrādi lokapālaṁsva svayudhānsva-sva-vāhanān. Pūjā-homādikāṁ kuryād-ayugma-divasa dvijaiḥ ; yathā-kāmaṁ yathā-śakti vali-dānaṁ vidhānataḥ. Nirājanāṇca kartavyaṁ tauryatrika-puraḥsanam ; nadyāṇca sthāpayet-devīm-udupe cottame tataḥ. Dakṣiṇāṁ vidhivaṇ-datvā gīta-vādyaiḥ samāpayet, darśanācca vicitrāyā vāg-dṛṣṭi-haraṇaṁ bhavet. Nāgo nāmnā ca Gauhārī vikhyātā sā mahitāle ; yo'rcayet surasāṁ devīm vratastho bhakti-bhāvataḥ ; iheṣṭakāmān sampāpya dehānte svargamuttamaṁ. Putra-pautra-prapautrāntaṁ Lakṣmī-nairūjya vā bhāgbhavet ; dākinyādi bhayaṁ nāsti na ca sarpabhayaṁ tathā. " In this world and in each reign it is proclaimed as popular tradition. In order to appease completely all spirits and witches there are those popular (rites? and) mantras and the songs of Viśahari and of Maṅgalacaṇikā. There are these famous popular reports that as by Lakṣmīdhara was given a boat named Madhukara one should build a charming boat and worship there. An earthen image should be made surrounded by Devatas and others, and after building the Vicitrā the worship should be performed with singing and dancing. The word 'ādi' in the expression 'devatādyaiḥ' denotes here the wives (parigraha has 39 meanings. See *ARTE*) of the Siddhas, Nagas, Kinnaras, Gandharvas, Yakṣas, Rākṣasas, etc. It is said about the (degree of) worthiness to be worshipped that a boat which is twenty-cubits is inferior, that of forty cubits of medium quality, that which is sixty cubits is supe-

rior and one of hundred cubits is the best of all. If it is less than fourteen cubits it cannot be called a "boat". Those who came to see the dancing of Vipulā before Bhutanātha should be worshipped in their respective places. One should worship Brahman, Mādhava, Rudra, Vāṇī, Lakṣmī, Pārvatī, Kārtikeya, Gaṇeśa, Kāliya and the Eight Serpents (in heaven); and also Jaratkāru, Āstika, and Candradhara on earth; his wife Svārṇa-rekhā and son Lakṣmīdhara; his i.e. (Lakṣmīdhara's) wife Vipulā, the brahmin Śrīdhara, the astrologer Yaśodhara, and the boatman Durlabha. At the forefront of the boat (should be placed) Gaṇeśa, and the eight footmen (soldier?), store-keepers and armed people should be placed in the middle, front and rear respectively. (Pictures) should be drawn of the washer-woman, sugandhā and others, and Durgā Suresvarī and other deities on all sides; of all the keepers of regions, such Indra on arms and on their riding animals. Pūjā and Homa should be accomplished by Brāhmins in odd number of days. Sacrifices of animals should be made according to wish and capacity as recommended. After the triple symphony, the waving of light should be performed. Then (the image) the deity should be placed on a raft on the river. After giving the 'dakṣiṇā' according to sanction one should finish by song and playing on instruments. At the sight of the Vicitrā the faculties of speech and look are lost. The boat named "Gauhāri" is famous on this earth. One who worships the deity Surasā with devotional sentiment and being in vowed observance gets his desired objects in this world, and attain heaven after death. He gets health and prosperity upto (four generations, i.e.) his son, grandson and great grandson. He has no fear from witches and serpents."

The extract given above will, at once, strike the readers of Bengali *Manasā Maṅgal Kāvya* as containing the same personages whom we meet with in the poems. The names given here are:—(1) Jaratkāru, (2) Āstika, (3) Aṣṭanāga (the eight snakes), Candradhara, (5) Svārṇa-rekhā, (6) Lakṣmīdhara, (7) Vipulā, (8) Śrīdhara, (9) Yaśodhara, (10) Durlabha, (11) Rajakī (washer-woman), (12) Sugandhā. All these, except Sugandhā are so well known in Bengal that this very list may create a suspicion that this work was from the pen of a Bengali author and not of any other province. Even the forms of the names are the same though more popular vernacular forms are in use in the poems—e.g. cānd or cād for Chandradhara; Sonekā or sanakā for Svārṇa-rekhā; Lakkhindar (i.e. Lakṣmīdhara) for Lakṣmīdhara; Vehulā or viulā for vipulā; Yaśāi for Yaśodhar; Dulāi for Durlabha, etc. The relation among these personages and the function of each as described here are the same as in Bengali poetical works, e.g. Candradhar's wife is Svārṇa-rekhā; their son is Lakṣmīdhara who is the husband of Vipulā; Śrīdhara is the priest; Yaśodhar the astrologer, the Captain of the boat of Candradhar is Durlabha.

In *Manasā-Maṅgal Netā Dopāni* (washer-woman) is the companion of *Manasā*. Here she has been mentioned only as Rajakī (washer-woman) without the name being given.

Sugandhā is the only exceptional figure. As she does not occur in Bengali *Kāvyas* we are not acquainted with her.

The phrase "naur-dattā Madhukarābhīdhā" should not escape our notice. The boat of Candradhar is known as Madhukar in Bengali literature. It was drowned by the agency of *Manasā*, and here the reference is made to the fact that it was brought back by Lakṣmīdhara (through Vehulā who received the grace of the gods). There is also a sentence which is of considerable importance as it refers to an incident in *Manasā-Maṅgal*:—Sannidhau Bhūtanāthasya Vipulāyaś-ca nartane. After the death of Lakṣmīdhara his wife Vehulā floated on the river in a raft with the dead body of her husband, and went to heaven. She pleased Śiva by her dancing and brought back her husband to life. Gauhāri and Vicitrā have been referred to above.

It may be said on the whole, that the subject matter of the passage quoted

above tallies with the story current in Bengal. It may be that the popular story current here was adapted by the people of Mithilā (as the author says “prthivyā[m] pratiloke ca lokavādā itīritāḥ and a local tradition was formed or the same story was prevalent in Mithilā from older days. Whatever might have been the case it seems probable that the writer worked upon what he got in his own locality. The point whether this piece is an original composition of the author himself or a quotation from any other work is worth investigating.

To sum up : The name of the book is Vyāḍibhakti-taraṅgiṇī. It is a book on Manasā worship. It had two parts, viz. Pramāṇa Taraṅga and Prayoga Taraṅga of which the latter has only one folio left. The manuscript is not dated, but seems to be about 125 years old. The colophon ascribes the book to Vidyāpati. The name of the Patron King is Darpanārāyaṇa who is said to be Samasta Prakriyālaṃkṛta, Bhūpativara, Vira and Samara-Vijayī. As the author does not want to repeat himself he refers his readers to Durgābhakti-taraṅgiṇī known to be work of Vidyāpati. For referring he uses the word “Anusandheyam” without naming the author of that book. There are a number of authorities quoted in the work ; of them two could not be identified ; the rest do not seem to be posterior to Vidyāpati. The time of Manasā-worship in Bengal is generally in the months of Āṣāḍha and Śrāvaṇa ; but the months of Vaiśākha is also recommended here. In this work it is directed that the worship should take place in a boat named “Gauhārī”. There is an unknown name “Sugandhā”, and a reference to the mysterious “Vicitrā”. These are unknown in Bengal. The persons and deities to be worshipped are common with those in Manasā Kāvya.

The cumulative force of the majority of the evidences tends towards the impression that this *Vyāḍi-bhakti-taraṅgiṇī* was from the pen of an author belonging to a tract outside Bengal, and he was most probably the Vidyāpati who was a celebrated poet and writer of Mithilā. If in future the hypotheses put forth in these pages is proved to be an established fact we shall have a new name in the list of Vidyāpati's works which number at present a dozen exclusive of his lyric poems. All historians, up to now, have declared that *Durgābhakti-taraṅgiṇī* was the last work of Vidyāpati, but we may be, in future, in a position to replace the word “Durgā” by “Vyāḍi” before the term “-bhakti-taraṅgiṇī”.

INTERPOLATIONS IN THE FRAGMENTARY TIBETAN VERSION OF THE VIMUKTIMĀRGA *

By

P. V. BAPAT, Poona

In my paper submitted to the Seventh Session of the All-India Oriental Conference held at Baroda (1933) and printed since in the *Proceedings Volume* of that Session of the Conference (pp. 131-135), I have shown from the evidence of the manuscripts then available to me that the fragmentary Tibetan Version of the *Vimuktimārga* contained, in the first half of the text, quotations from several Mahāyāna works. Recently from the evidence of a xylograph from the Library of Congress, Washington, U.S.A., I have proved¹ that these quotations from the Mahāyāna works are interpolations and have nothing to do with the latter half of the Text, which alone forms the subject matter, namely, 'Purifying Practices.' This forms the subject matter of the third chapter of the *Vimuttimaggā* corresponding to the second chapter of the *Visuddhimaggā*. When divested of this interpolation, the Tibetan version substantially agrees with the Chinese translation of the third chapter of the *Vimuttimaggā*, a detailed summary of which I have given in my *Vimuttimaggā and Visuddhimaggā* (pp. 16-25).

These passages that have been interpolated are quotations from Mahāyāna Sūtras, the names of which are given in Tibetan translations. Though these sūtras are not separately available in the original, several of them are quoted or referred to by name in Buddhist Sanskrit works and most of them are traced in Tibetan or Chinese Tripiṭaka. It is proposed in this short paper to give a brief outline of the contents of these quotations and identify some of them with passages available in Buddhist Sanskrit works. Soon after the beginning of the Tibetan version, the interpolation is inserted and at the commencement we have a quotation from the *Arthaviniścaya Sūtra*.² The mendicants staying in a forest or under a tree or in an empty place are represented to be reflecting upon the ugly nature of the body. They reflect upon the different constituents of the body and we get a list of them. This reflection is further compared to the reflection of a wise man who ponders upon the different kinds of grain or corn which he pours upon ground from a bag. (From *Sikṣāsamuccaya* (pp. 209-210), *Pañcaviṃśatikā* (pp. 205-06) and *Majjhimanikāya* (Vol. i, p. 57, sūtra No. 10) we are able to restore the Tibetan passage to the following :—

इमेव कायं ऊर्ध्वं पादतलादधः³ केशमस्तकात् पूर्णं नानाप्रकारस्याशुचेर्यथाभूतं प्रत्यवेक्षते—सन्न्यस्मिन् काये केशा रोमाणि नखा दन्ता रजो मलं त्वक् मांसास्थि स्नायुः शिरा वृक्का हृदयं क्लोमकः श्लिहक आमाशयः पक्वाशय अन्त्राण्यन्त्रगुणा औदर्यकं यकृतं पुरीषं खेटः स्वेदः सिंघाणकमश्रु वसा लसीका मज्जा मेदः पूयं श्लेष्मा पित्तं शोणितं मस्तकं मस्तकलुंगं, प्रसाव⁴ अक्षिगूयं⁵ कर्णगूयं⁶ नखमलं जिह्वामलं च । पूर्णं नानाप्रकारस्याशुचेर्यथाभूतं प्रत्यवेक्षते ।

यथेध भिक्षव उभयतोमुखा⁶ सुतोडी⁷ पूर्णा नानाविहितधान्यानां शालीनां व्रीहीणां यवानां गोधूमानां माषाणां मुद्गानां कुल्लथानां⁷.....⁸मशराणां मुकुट्यानां सर्षपाणां, तामेनां चक्षुमान् पुरुषो मुक्त्वा

*Submitted to and read at the Eleventh Session of the All-India Oriental Conference held at Hyderabad (1941).

1. See my article 'A Washington Manuscript' printed in the *Annals of the Bhandarkar Oriental Research Institute*, Vol. XXII parts i-ii, (pp. 116-119).

2. *Nanjio* 1015, Taisho edition vol. XVII, No. 763; *Kanjur Cat.* (Otani Uni.) No. 983 (p. 379), *Tohoku Cat.* No. 317.

3. *Majjhimanikāya* i. 57 (sutta No. 10); also *Sikṣāsamuccaya* 209, *Pañcaviṃśatikā* 205.

4. *Sikṣāsamuccaya* passage ends here.

5. *Pañcaviṃśatikā* adds these words and stops. The next words are not found even in this text.

6. The Tibetan words are not clear in indicating these two rendering but they are taken from a corresponding Pali text, which gives the nearest approach.

7. Not found in *Sikṣā*. or *Pañca*. The order given here of these different kinds of corn is not the same as in both the texts, which, however, agree with each other.

8. It is not clear what the Tibetan word *hbras-ni-spa-ba* implies.

प्रत्यवेक्षेत । प्रत्यवेक्षमाण एवं जानीयादिमे शाल्य इमे ब्रीहय अमी यवा अमी गोधूमा अमी माषा अमी मुद्गा अमी कुलत्थो.....⁹ अमी मशूरा अमी मुकुष्टा अमी तिला अमी तण्डुला अमी सर्षपा इति ।

Then follows a quotation from *Viradattapariṣeṣhā Sūtra*,⁹ which explains the origin of the body from the semen of the father and blood of the mother (*mātāpitṛṣonītaśukrasambhūta*) and the gradual building of this nucleus by means of food into solid and liquid constituents of the body, such as flesh, fat, bone, marrow, different humours such as bile, phlegm etc. This passage is concluded with verses which can be identified with the following from the same Sūtra quoted in *Sikṣāsamuccaya* (p. 231):—

एवंविधं कायमचौक्षराणि । रूपाभिमानी बहु मन्यते यः ।
प्रज्ञायमानः स हि बालबुद्धिः । विष्टाघटं याति वहन् विचेताः ॥
पूयप्रकारं वहतेऽस्य नासा । वक्त्रं कुगन्धं वहते सदा च ।
चिकित्स्तथाक्ष्णोः किमिव च जन्तोः । कस्तत्र रागो बहुमानता वा ॥
अङ्गारमादाय यथा हि बालो । घृण्येदयं यास्यति शुक्लभावम् ।
याति क्षयं नैव तु शुक्लभावं । बालस्य बुद्धिर्वितथाभिमाना ॥
एवं हि यः चौक्षमतिर्मुष्यः । चौक्ष्यं करिष्येऽहमिदं शरीरम् ।
सुद्वर्तितं तीर्थशताभिषिक्तं । याति क्षयं मृत्युवशादचौक्षम् ॥

Next follows a long quotation from the *Ārya-vimalakīrti-nirdeśa*¹⁰ which describes, in a number of similes, the transitory, painful and unsubstantial character of the human body which creates feelings of disgust and which consequently makes one cherish faith into the body of the *Tathāgata* (*Tathāgata-kāya*). The passage incidentally refers to four hundred and four diseases with which the human body is afflicted. So far I have been able to identify only a few phrases from this passage. The remaining still requires further work.

Next in order comes the *Satyapariṣvarta*¹¹ from which is given a small quotation mentioning the eight qualities of a king that wants to be prosperous. This quotation as well as the next from the *Vicikitsā-sukambha Sūtra*¹² which mentions four qualities for a Kṣatriya king for progress in piety and prosperity, have like the others, least to do with the subject-matter of the chapter, namely, the Purifying Practices.

Next comes a quotation from *Sūryagarbha-pariṣvarta*,¹³ which mentions a declining condition awaiting the Buddhist mendicants, in time to come. They will be coming from the families of Kṣatriyas, Brāhmaṇas, Vāiśyas, and Śudras for worldly considerations such as good comfortable houses, parks, gardens, for the possession of fields, slaves, servants, beds, seats and medical requisites. There will also be men coming from street-wanderers, mountain-robbers, and country-looters. The life of these men will be polluted by twenty undesirable dharmas, a list of which is given followed by a detailed description of the dreadful sufferings in the various kinds of hells to which they may go after death.

Last comes a long quotation from the *Ākāśagarbha Sūtra*¹⁴ which first gives the five root-sins (*mūlāpattayah*) of a Kṣatriya monarch, then refers to the five root-sins of a minister, gives the first two of them in detail, perhaps begins the third, and all of a sudden we feel a switching off to an altogether different passage, which is in continuation of the

9. Nanjo 23 (28) ; Taisho ed. Vol. XII, No. 331 (pp. 67c-68a) ; Kanjur Cat. (Otani Uni.) p. 247, No. 28, Tohoku Cat. No. 72.

10. Nanjo 144-47, 149, 181, Taisho ed. Vol. XIV. No. 474-479 ; Kanjur Cat. (Otani Uni.) No. 843, Tohoku Cat. No. 176.

11. (?) ; Tohoku mentions (Nos. 3881-3883) *Satyadvayavibhanga-kārikā*, *Satyadvaya-vibhanga-vṛtti*, *Satyadvaya-vibhanga-pañjikā*.

12. (?) Anukulchandra BANERJEE renders this as *Vicikitsā-sudhvaṃsa sūtra* in *Ind. Hist. Quarterly* Vol. xvii, (March 1941) p. 123. This may as well be rendered by '*Vimali-su (-vi-)skambha-sūtra*.'

13. Nanjo 62 mentions *Sūryagarbha* ; Kanjur Cat. (Otani Uni.). No. 923 ; Tohoku Cat. No. 41 mentions *Sūryasūtra*.

14. Nanjo 67-70, Taisho ed. Vol. XIII No. 406-407, p. 659a 7-24, p. 665a 11-26 ; Kanjur Cat. (Otani Uni.) No. 926 (p. 359) ; Tohoku Cat. 474-479.

passage, at the very beginning of the text, interrupted by this interpolation. This is a very clear proof of the interpolatory character of these quotations. *Sikṣāsamuccaya* (pp. 59-60) and *Bodhicaryāvatāra* (pp. 159-160) help us in identifying the Tibetan passage with the following two paragraphs, the first of which is almost identical with that in the former and the second can be reconstructed from them, especially from the latter.

पञ्चेमाः कुलपुत्र क्षत्रियस्य मूर्धाभिषिक्तस्य मूलापत्तयः । याभिर्मूलापत्तिभिः क्षत्रियो मूर्धाभिषिक्तः सर्वाणि पूर्वोक्तोपितानि कुशलमूलानि ज्ञापयति¹⁵ । वस्तुपतितः पाराजिकः सर्वदेवमनुष्यमुखेभ्योऽपायगामी भवति । कतमाः पञ्च । यः कुलपुत्र मूर्धाभिषिक्तं स्तौपिकं वस्त्वपहरति सांघिकं वा चातुर्दिशसंघे¹⁶ नियतितं¹⁷ बोऽपहरतीयं प्रथमा मूलापत्तिः । यः पुनर्धर्मं प्रतिक्षिपति श्रावकनिर्याणभाषितं वा प्रत्येकबुद्धनिर्याणभाषितं वा महायाननिर्याणभाषितं वा प्रतिक्षिपति प्रतिषेधयतीयं द्वितीया मूलापत्तिः । यः पुनर्मांमुद्दिश्य प्रव्रजितः¹⁸ शिरस्तुण्डमुण्डकाषायवल्गुप्रावृतः शिक्षाधारी वा अशिक्षाधारी वा तस्य दुःशीलस्य वा शीलवतो वा काषायाणि वल्गाप्यपहरति, गृहस्थं वा करोति, काये¹⁹दण्डैः प्रहरति,²⁰ चारके वा प्रक्षिपति, जीवितेन वा वियोजयतीयं तृतीया मूलापत्तिः । यः पुनः क्षत्रियः संचिन्त्य मातरं जीविताद्यपरोपयति पितरमहेन्तं भगवच्छ्रावकं वा जीविताद्यपरोपयति समग्रं वा संघं भिनत्ति तथागतस्यार्हतः सम्यक्सम्बुद्धस्य संचिन्त्य दुष्टचित्तो रुधिरमुत्पादयति । एभिः पञ्चभिरानन्तर्यैः कर्मभिरन्यतरान्यतरं कर्मात्पादयतीयं चतुर्थी मूलापत्तिः । यः पुनः क्षत्रियोऽहेतुवादी भवति परलोकोपेक्षकः दशकुशलान् कर्मपथान् समादाय वर्ततेऽन्याश्च बहून् सत्त्वान् दशस्वकुशलेषु कर्मपथेषु समादापयति विनयति निवेशयति प्रतिष्ठापयतीयं पञ्चमी मूलापत्तिः²⁰ ।

पञ्चेमाः²¹ पुनः परिणायकस्य मूलापत्तयः । कतमाः पञ्च । यः परिणायकः स्तौपिकं वस्त्वपहरति सांघिकं वा चातुर्दिशसांघिकं वेद्यं प्रथमा मूलापत्तिः । यः पुनर्ग्रामभेदं जनपदभेदं नगरभेदं राष्ट्रभेदं करोतीयं द्वितीया मूलापत्तिः । यः पुनर्धर्मं प्रतिक्षिपति श्रावकनिर्याण..... (The interpolation ends here and the passage is then switched on to another passage which is a continuation of that at the beginning of the text interrupted by this interpolation.¹) अल्पेच्छता, संतुष्टिः, संलेखः :..... Thus it will be seen from the outline of the contents of, or full reproduction, wherever possible, of the Sanskrit passage corresponding to the interpolation in the Tibetan version as given in several manuscripts, that the long unwanted passage has by some mistake of the scribe come to be inserted and has really nothing to do with the subject-matter of the chapter, namely, the Purifying Practices. This has been confirmed by one xylograph from Washington, which does not contain this interpolation, on which subject, as I have said at the beginning of this paper, I have already written a special article.

It is also hoped that the foregoing analysis will help scholars working in this field in identifying the as-yet unidentified passages with some scattered over the vast range of Mahāyāna Literature.²²

15. This reading from *Bodhicaryāvatāra* p. 159 is more consistent than 'kāṣayati' from *Sikṣā*, with the Tib. reading.

16. *Sikṣā*. reads 'Cāturdiśa-sāhikaṃ vā niryātitaṃ vā.'

17. *Sikṣā*. inserts hereafter 'svayaṃ vā harati, hārayati vā.'

18. *Sikṣāsamuccaya* omits.

19. Tibetan has two clauses signifying similar sense.

20. The passage in *Sikṣāsamuccaya* ends here.

21. I add this Sanskrit rendering of the fag end of the interpolated passage to bring out more clearly how the passage has an abrupt conclusion and to show how it does not fit in with the words *alpeccatā, santuṣṭiḥ, saṃlekhaḥ* etc. that come next. These words are the continuation of the passage where it was interrupted by this interpolation. For this see the article referred to in the very first numbered foot-note of this paper.

22. Since I wrote this about three years ago, it has been discovered that the Tibetan version of the *sūtrasamuccaya* contains all these interpolated extracts. Mr. Anukulchandra BANERJEE of the Post-graduate Department of Calcutta University has kindly looked into the Tibetan Xylograph for me and he writes to me that all these passages are found in folios 191a⁴-196b³ of the Snarhang edition of Calcutta University. It, therefore, appears to be probable that a Tibetan scribe has, through inadvertence, copied this in one version of the *Vimuktimārga* from the *Sūtrasamuccaya* (Tanjur, Mdo. Vol. a). I gladly acknowledge the help given to me by Mr. BANERJEE.

THE CHANDOGA-PARIŚIṢṬA (*alias* KĀTYĀYANA-SMṚTI).

By

R. C. HAZRA Dacca.

A good number of verses has been quoted from the *Chandoga-pariśiṣṭa* in Śrināthācārya-
cūḍāmaṇi's *Kṛtya-tattvārṇava*.

The facts that some of these verses, as also many others occurring in different Smṛti
Nibandhas, are quoted with the words 'chandoga-pariśiṣṭe kātyāyanah' or 'chandoga-
pariśiṣṭam kātyāyanah',¹ and that the same verse are found quoted as from '*Chandoga-
pariśiṣṭa*' in some places and from 'Kātyāyana' in others,² show that Kātyāyana is the
author of the *Chandoga-pariśiṣṭa*. In *Smṛti-tattva* I, p. 531 the authorship of this work is
expressly fathered on Kātyāyana (cf. kātyāyana-kṛta-chandoga-pariśiṣṭe' pyevaṃ).
But as almost all the quotations made from the '*Chandoga-pariśiṣṭa*' in different Smṛti works
are found in the *Kātyāyana-smṛti*³ (which is comprised in Jivānanda VIDYĀSĀGARA's edition

1. See *Kṛtya-tattvārṇava* (Dacca University Ms. No. 4630) fol. 38a; *Kālaviveka*, pp.
280-1, 285, 356-7, 359, 368; *Smṛti-tattva* I, pp. 168, 210, 269, etc.; *Madana-pārijāta*, 171;
Hāratalā, pp. 6, 22, 108, 132, 140, 145, 183; and so on.

2. For instance, the verse 'ekāhena tu śaṇmāsāḥ', which is quoted as from *Chandoga-
pariśiṣṭa* in *Kṛtya-tattvārṇava*, fol. 2b. *Varṣakaumudī*, p. 226, *Śrāddha-kaumudī*, p. 338,
Smṛti-tattva I, p. 758; the line 'yasminn abde dvādaśaikaś ca yavyah', which is quoted as
from *Chandoga-pariśiṣṭa* in *Kṛtya-tattvārṇava*, fol. 3a. is ascribed to 'Kātyāyana' in *Śrāddha-
kaumudī*, p. 330 and *Smṛti-tattva* I, pp. 171 and 272; the verse 'munibhir dviraśanam prok-
tam', which is quoted as from *Chandoga-pariśiṣṭa* in *Kṛtya-tattvārṇava*, fol. 23a, *Varṣa-ka-
mudī*, pp. 65 and 104, and *Smṛti-tattva* II, pp. 3, d56 and 151, is ascribed to 'Kātyāyana' in
Smṛti-tattva I, pp. 30, 53 and 539; the verse 'dhanuḥ-sahasrāny aṣṭau ca', which is quoted
as from '*Chandoga-pariśiṣṭa*' in *Kṛtya-tattvārṇava*, fol. 48a, Kullūka-bhaṭṭa's commentary
or Manu IV. 103 and *Smṛti-tattva* I, pp. 153 and 367, is ascribed to '*Chandoga-pariśiṣṭa*'
in *Kālaviveka*, p. 285 and to 'Kātyāyana' in Apprārka's commentary on the *Yājñavalkya-
smṛti*, pp. 135 and 234 and *Smṛti-candrikā* II, p. 333; and so on.

The verse 'pindānvāhāryakam śrāddham', which is quoted as from '*Chandoga-pariśiṣ-
ṭam Kātyāyanah*' in *Kṛtya-tattvārṇava*, fol. 38a and *Kālaviveka*, pp. 359 and 368, is ascribed
simply to '*Chandoga-pariśiṣṭa*' in *Śrāddha-kaumudī*, p. 323 and *Smṛti-tattva* I, pp. 167 and
268, and to 'Kātyāyana' in *Kālanirṇaya*, p. 305, *Madana-pārijāta*, p. 501 and *Smṛti-candrikā*
IV, pp. 30 and 84; the verse 'yad uktam yad ahas tveva', which is quoted as from '*Chan-
doga-pariśiṣṭam Kātyāyanah*' in *Kṛtya-tattvārṇava*, fol. 38a and *Kālaviveka*, p. 359 is as-
cribed to 'Kātyāyana' in *Śrāddha-kaumudī*, p. 329 and *Smṛti-tattva* I, pp. 169 and 270;
the verse 'sapindikaraṇād ūrdhvam', which is quoted as from '*Chandoga-pariśiṣṭa*' in *Smṛti-
tattva* I, p. 18, is ascribed to 'Kātyāyana' in *Madana-pārijāta*, p. 617; and so on.

On the other hand, the verse 'yavya-dvayam śrāvaṇādī', which is quoted as from
'Kātyāyana' in *Kṛtya-tattvārṇava*, fol. 47b, *Kālaviveka*, p. 281, and *Smṛti-candrikā* II, p.
341, is ascribed to the '*Chandoga-pariśiṣṭa*' in *Varṣa-kaumudī*, pp. 109 and 293 and *Śuddhi-
kaumudī*, p. 325.

3. For instance, the verses quoted from the '*Chandoga-pariśiṣṭa*' in

(1) <i>Kālaviveka.</i>	<i>Kātyāyanasmṛti</i>	(2) <i>Śrāddha-viveka</i> (of <i>Sulapāṇi</i>)	<i>Kātyāyanasmṛti</i> ,
pp. 280-1	= 10, 7-10.	fol. 56a-b	= 15, 21; 26, 13.
p. 285	= 10, 6.	" 16a	= 26, 9.
pp. 356-7	= 16, 10-11.	" 27b	= 17, 23.
p. 359	= 16, 1-3.	" 28a (twice)	= 17, 25 and 24.
p. 368	= 16, 1-2.	" 29a	= 16, 22; 24, 14.
		" 39b	= 16, 11.
		" 45a	= 16, 1.
(2) <i>Śrāddha-viveka</i> (of <i>Sulapāṇi</i>).		" 55a	= 15, 1.
fol. 2a	= 14, 1.	" 55b	= 15, 21.
" 2b (twice)	= 25, 5; 15, 5a.	" 56a	= x.

(2) *Srāddha-viveka Kātyāyanasmṛiti*
(of *Sulapāṇi*)

" 56a-b	=	15, 3.
" 60a	=	24, 14.
" 61a	=	2, 4.
" 61b	=	15, 21.
" 65a	=	3, 2.
" 68b	=	17, 15.
" 69b	=	2, 7b.
" 70a	=	4, 7.
fols. 76b-77a	=	16, 12-15.
fol. 80b	=	24, 7-9.
" 84a	=	2, 10.
" 89a	=	16, 20.
" 90a	=	16, 16-17a.
" 92b	=	24, 13.
" 96a	=	15, 17b.
" 98b	=	16, 17b-19.
" 99b	=	16, 21.
" 100b	=	16, 21b.
" 104a	=	24, 14.
" 110b	=	16, 22.
fol. 114b	=	2, 8.
fols. 115a-116a	=	1, 13-16, 18 ; 2, 1, 6-9 ; 3, 7-14 ; 4, 1-7, 9-10.
fol. 116b	=	1, 18a.
" 118a	=	3, 11b.
" 118a-b	=	5, 1-11a ; 18, 21.
fols. 120b-121a	=	13, 6-7 ; 13, 8.

(3) *Smṛti-tattva*

1, p. 9	=	x.
p. 9	=	24, 9.
p. 10	=	24, 8.
p. 11	=	3, 6.
p. 13 (twice)	=	1, 5 ; 15, 21b.
p. 17 (twice)	=	3, 4 ; 3, 5-6.
p. 18	=	24, 13.
pp. 55-56	=	17, 25.
p. 68	=	19, 1.
pp. 85-4	=	13, 11b.
pp. 93-4	=	6, 11.
p. 97	=	15, 19-20.
p. 100	=	18, 10-11.
p. 101 (twice)	=	9, 6 ; 15, 1.
p. 129	=	7, 6.
p. 153 (twice)	=	10, 5, 7, 14 ; 10, 6.

p. 168	=	16, 2.
p. 176	=	11, 14.
p. 195	=	18, 24.
p. 196	=	11, 3a.
p. 197	=	1, 10.
pp. 101-2	=	2, 4b.
	Four lines from 'nivī-madhye' are not found.	
p. 205	=	4, 8.
p. 207	=	4, 7.
p. 208	=	11, 3b.
p. 210	=	2, 13-14.
p. 212	=	2, 7b.

(3) *Smṛti-tattva Kātyāyanasmṛiti*

p. 213	=	1, 18a.
p. 219 (twice)	=	17, 14, 12-13 and 15.
p. 222	=	3, 7.
p. 234	=	17, 17-19 ; 2, 10-11a.
p. 236	=	3, 11-12a.
p. 237	=	3, 12a ; 3, 12b ; 17, 19.
p. 238	=	4, 2b.
p. 240	=	3, 14b ; 17, 21.
pp. 240-1	=	17, 22.
p. 242	=	4, 3a ; 4, 5-7.
p. 245	=	4, 9.
p. 246	=	15, 1.
p. 257	=	3, 6.
pp. 259-260	=	17, 25.
p. 260	=	26, 9.
p. 261	=	25, 17.
p. 266	=	x.
p. 268	=	16, 1.
p. 269	=	16, 2.
pp. 278-9	=	24, 7 and 8b-9.
p. 291	=	x.
p. 292	=	3, 6.
p. 294	=	15, 21.
p. 295	=	16, 17b-19.
p. 298	=	16, 21 ; 17, 23a.
p. 300	=	24, 10.
pp. 303-4	=	24, 14.
p. 304	=	16, 22a.
p. 306	=	19, 1.
p. 309	=	1, 13-16 and 18 ; 21 and 6-9 ; 3, 7-14 ; 4, 1-7 and 9-10.
p. 312	=	x.
p. 313	=	16, 15a.
pp. 319-20	=	5, 1-5 and 10, 11a.
p. 322	=	18, 21.
p. 327	=	19, 9-10.
p. 338	=	1, 5.
p. 341	=	10, 2-4.
p. 355	=	11, 2b-3.
&c.	=	&c.

(3) *Dāna-Kaumudī*

p. 32	=	x.
p. 91	=	x.
p. 94	=	x.
p. 119	=	x.

(4) *Varṣa-Kaumudī*

p. 22	=	16, 2, 10 and 9.
p. 65	=	13, 9.
p. 92	=	10, 14.
p. 109	=	10, 5 and 7b.
p. 110	=	x.
p. 111	=	10, 14.
p. 293	=	10, 5.

of the *Dharmaśāstra saṃgraha*),⁴ whereas a considerable number of the quotations made from 'Kātyāyana' in different places are remarkably absent from it,⁵ the question naturally

(5) <i>Suddhi-Kaumudī</i>	<i>Kātyāyanasmṛti</i>	(1) <i>Hāralatā</i>	<i>Kātyāyanasmṛti</i>
p. 7	= 24, 1.	p. 19	= 17, 12-13.
p. 13	= 24, 1b-2a and 3.		The line 'na śoṣ-
p. 67	= 24, 5a.		yanti' is not
p. 109	= x.		found.
p. 111	= x.	p. 22	= 24, 1-4.
p. 112	= x.	p. 107	= 24, 5-6.
p. 113	= x.	p. 132	= 21, 2-16.
p. 118	= x.	p. 137	= 19, 1.
p. 122	= x.	p. 140	= 23, 2-8.
p. 125	= x.	p. 144	= 23, 5.
p. 147	= x.	p. 145	= 22, 1-2
p. 156	= x.	p. 175	= 24, 11b.
p. 165	= x.	p. 176	= 24, 11a.
p. 180	= x.		
p. 243	= x.	(8) <i>Piṇḍayitā</i>	
p. 254	= 24, 9.	p. 24	= 14, 5-7.
p. 343	= 1, 5b.		
		(9) <i>Kṛtya-tattivārṇava</i>	
(6) <i>Madana-pārijāta</i>		fol. 2b	= 24, 9.
p. 21	= 1, 2-3.	" 3a	= 16, 8.
p. 171	= 6, 4-6.	" 23a	= 13, 9.
p. 239	= 2, 14.	" 24b	= 10, 7.
	Four lines from	" 27b	= 16, 2 and 10.
	'Kauśeyaṃ vi-	" 38a	= 16, 1-4 and 9-10.
	bhryāt' are not	" 40a	= 26, 9.
	found.	" 48a	= 10, 6.
		" 48b	= 10, 7.
		" 67a	= 26, 9.
		" 67b	= 26, 9.
		" 74b	= 26, 9.
		" 76b	= 17, 25.
		" 77a	= 17, 24.
		&c.	&c.
(7) <i>Hāralatā</i>			
p. 4	= 23, 9a.		
p. 6	= 24,		

The above list will show the proportion of traceable and untraceable verses of the '*Chandoga-pariśiṣṭa*'.

It is probable that the text of the *Chandoga-pariśiṣṭa* as used by Govindananda was a little different from those used by other Smṛti-writers.

4. This *Kātyāyana-smṛti* is the same as the *Kātyāyana-smṛti* occurring in the Veṅkaṭeśvara Press edition of the *Aṣṭādaśa-smṛti* and the *Kātyāyana-saṃhitā* contained in the Vaṅgavāsī edition of the *Unavaṃśatī-saṃhitā*. It occurs under the title *Gobhila-smṛti* in the Anandāśrama edition of the *Smṛtīnām Samuccayaḥ*.

5. For instance, the verses quoted from 'Kātyāyana' in

(1) <i>Kālaviveka</i>	<i>Kātyāyana-smṛti</i> .	(2) <i>Madana-pārijāta</i> .	<i>Kātyāyana-smṛti</i>
p. 281	= 10, 5.	p. 173	= x
p. 283	= x	p. 176	= x
p. 359	= x	p. 205	= x
p. 365	= x	p. 206	= x
p. 366	= x	p. 208	= x
		p. 238	= x
(2) <i>Madana-pārijāta</i> .		p. 241	= 2, 2.
p. 23	= x	p. 250	= x
p. 24	= 8, 17.	p. 306	= 13, 4a.
p. 56	= 2, 14.	p. 310	= 13, 10.
p. 62	= 10, 1.	p. 313	= x
pp. 66-67	= x	p. 314	= 9, 10.
p. 86	= x	pp. 402-3	= x
p. 142	= x	p. 480 (twice)	= 24, 14.
p. 153	= x	p. 490	= x

arises as to whether this *Kātyāyanasmṛti* is identical with the *Chandoga-pariśiṣṭa* drawn upon in the Nibandhas, or it is only a part of a larger Dharmaśāstra work composed by or attributed to, Kātyāyana.

It is to be noted at the beginning that the present *Kātyāyana-smṛti*, which is divided into Prapāthakas and not Adhyāyas, is really called 'Kātyāyana-viracita Karmapradīpa' in the colophons of all its Prapāthakas.⁶ It is only in the colophon of the first Prapāthaka in the Vaṅgavāsī and Jivānanda's editions that the work is called 'Kātyāyana-viracita Karmapradīpa-pariśiṣṭa'.⁷ The title 'Karmapradīpa' is also justified by its opening verse which states that it undertakes to show, like a lamp, the mode of performing those rites treated by Gobhila, as well as other rites, which have not been clearly elucidated.⁸

Now, from the fact that a considerable number of quotations made from 'Kātyāyana' in different Smṛti works is not found in our *Kātyāyana-smṛti* (or *Karmapradīpa*), P. V. KANE comes to the conclusion that there was a larger work of *Kātyāyana* of which the present *Kātyāyana-smṛti* is either an abridgment or only a portion.⁹ Against this conclusion of KANE it may be said that more works than one are attributed to *Kātyāyana*,¹⁰ but when quotations,

(2) *Madana-pār Kātyāyanasmṛti jāta.*

p. 492	= x
p. 494	= x
p. 501	= 16, 1a.
p. 501	= 16, 6-7.
p. 541	= 16, 12.
p. 552	= x
p. 564	= x
p. 568	= 2, 4.
p. 571	= x
p. 575	= x
p. 580	= x
p. 582	= 17, 15.
p. 585	= x
p. 586	= x
p. 592	= x
p. 602	= x
p. 613	= 24, 7.
p. 617	= 24, 13.
p. 624	= 16, 21.
pp. 625-6	= 16, 16-19.
p. 629	= 24, 12.
pp. 632-3	= x
p. 635	= 2, 7b-9a ; 18, 21.
pp. 636-7	= 1, 13.
p. 638	= 5, 10.
p. 654	= x

(2) *Madana-pār Kātyāyanasmṛti jāta.*

p. 671	= x
p. 672	= x
p. 686	= x x
p. 843	= x

(3) *Hāratalā.*

p. 4	= x
p. 9	= x
pp. 181-2	= x

(4) *Prāyaścitta-prakaraṇa*
(of Bhavadeva)

p. 20	= x
p. 66	= x
p. 84	= x
p. 112	= x

(5) Mitākṣara on

<i>Yāj.</i> I, 254	= 16, 20.
" I, 255	= x
" III, 247	= 23, 4-5.
" III, 260	= x
" III, 264	= x
And so on.	

It is needless to make the list longer.

The above list will show the proportion of the traceable and untraceable verses of 'Kātyāyana'.

6. In the *Kātyāyana-smṛti* as comprised in the Veṅkaṭ. edition of the *Aṣṭādaśa-smṛti* the work is called 'Kātyāyana-viracita Karmapradīpa' in the colophon of the third Prapāthaka only.

7. The title 'Karmapradīpa-pariśiṣṭa' seems to be due to a confusion between the titles 'Karmapradīpa' and 'Chandoga-pariśiṣṭa'.

8. athāto gobhiloktānām anyeṣām caiva karmanām |
aspaṣṭānām vidhiṃ samyag darśayiṣye pradiṣvat ||

Kātyāyana-smṛti 1, 1.

9. KANE, *History of Dharmaśāstra* I, p. 221.

10. For instance, a *Kātyāyana-sūtra* is mentioned in *Hāratalā*, p. 131 and *Smṛti-tattva* I, pp. 82, 217, 242, etc.; a *Kātyāyana-grhya* is drawn upon in *Suddhi-kaumudī*, p. 146 and *Smṛti-tattva* I, p. 239 and II, pp. 490, 495 etc., a *Srauta-kātyāyana-sūtra* (*Kātyāyana-śrauta-sūtra* (?) is mentioned in *Smṛti-tattva* I, p. 219; a MS of the *Kātyāyana-grhyasūtra* has been described in H. P. SHASTRI'S *Descriptive Catalogue of Sans. Mss. ASB.*, Vol. II (Vedic), pp. 821-2, No. 1011; a *Kātyāyana-śrautasūtra* has been edited by Śrividyaadhara-

metrical or non-metrical, are made by the Smṛti-writers from these works which differ from one another in form, extent and contents and probably also in date, no distinction is made between the Sūtrakāra Kātyāyana and Dharmaśāstrakāra Kātyāyana, the quotations being very often attributed simply to 'Kātyāyana'.¹¹ So, there is no reason why all the quotations from '*Kātyāyana*' should be expected to have occurred in a single work of Kātyāyana. It is highly probable that there was a Dharmaśāstra work of Kātyāyana which dealt with Ācāra and Prāyaścitta and probably also with Vyavahāra and in which most of the untraceable metrical quotations from 'Kātyāyana' are to be traced. This probability gains ground when we see, on the contrary, that the great majority of the quotations made under the title '*Chandoga-pariśiṣṭa*' are found in the present *Kātyāyana-smṛti*, thus showing that our so-called *Kātyāyana-smṛti* is the same as the *Chandoga-pariśiṣṭa* drawn upon by the Smṛti-writers¹² and that it is a distinct work of Kātyāyana and not an abridgment or a part of a bigger work of his. As to the few cases in which the verses quoted from the *Chandoga-pariśiṣṭa* are not found in the present *Kātyāyana-smṛti* it may be said that either these verses have been lost from this work in course of time, or they occurred only in those MSS. of this work which were used by the Smṛti-writers quoting these verses. Of course, among the untraceable verses ascribed to 'Kātyāyana' there might have been a few which were really taken from *Chandoga-pariśiṣṭa*.

Our so-called *Kātyāyana-smṛti*, which, as we have already seen, was known as *Chandoga-pariśiṣṭa* to the Smṛti-writers probably because it serves as a *Pariśiṣṭa* (supplement) especially to the *Gobhila-gṛhyasūtra* meant for the Sāma-vedins, is also drawn upon under its real title '*Karmapradīpa*' in Devanabhaṭṭa's *Smṛti-candrikā*, Mādhavācārya's *Parāśara-bhāṣya*, etc.¹³ The long extract, which has been quoted as from '*Kātyāyana-smṛti*' in Mādhavācārya's *Parāśara-bhāṣya* (I, ii, pp. 197-201) and which has been traced by V. S. ISLAMPURKAR in the *Āśramopaniṣad*, was most probably taken from a Sūtra work of Kātyāyana.

Sarman and published by the Acyuta-granthamālā-kāryālaya, Benares, Samvat 1987; metrical quotations on Vyavahāra have been made in the Nibandhas, showing that there was a Dharmaśāstra work of Kātyāyana which dealt with or included a section on Vyavahāra; the *Chandoga-pariśiṣṭa* is connected with Kātyāyana in numerous places; and so on.

11. For the non-metrical quotations from 'Kātyāyana' see the list given in foot-note 5. 173, 313, 552, 564, 571, 575, 580, 602, 632-3; *Hāralatā*, pp. 138-9, 181-2; Mitākṣarā on *Yā.* 1, 255; *Kālaviveka*, pp. 359, 366; and so on.

For the metrical quotations from 'Kātyāyana' see the list given in foot-note 5.

12. That the present *Kātyāyana-smṛti* is identical with the *Chandoga-pariśiṣṭa* drawn upon in the Smṛti Nibandhas, is shown definitely by Raghunandana's quotation of its opening verse as belonging to the *Chandoga-pariśiṣṭa*. (See *Smṛti-tattva* II, p. 493—...ata eva 'athāto gobhiloktānām...' ityanena pratijñāya 'prārthanāsu pratiprokte...' ityanena etad api chandoga-pariśiṣṭena vyaktīkṛtam...) It is to be noted that the verse 'athāto gobhiloktānām' and 'prārthanāsu pratiprokte', ascribed by Raghunandana to the *Chandoga-pariśiṣṭa*, are the same as *Kātyāyana-smṛti* 1, 1 and 4, 9 respectively.

13. Verses quoted from the '*Karmapradīpa*' in

(1) <i>Mādhavācārya's Parāśara-bhāṣya</i> .	<i>Kātyāyana-smṛti</i> .
I, ii, p. 432	= 17, 21-22.
(2) <i>Smṛti-candrikā</i> .	
IV, p. 373	= 17, 21a, 22b and 21b.
(3) <i>Smṛti-tattva</i> .	
I, pp. 789-90	= 24, 8.
II, p. 157 (called 'Gobhiliya-karmapradīpa')	= x
p. 623 (same as on p. 157 above)	= x

MISCELLANEA

AURORA BOREALIS WAS KNOWN TO THE ANCIENTS AS A MANIFESTATION OF NĀRĀYAṆA.

[Communicated by Dr. B. BHATTACHARYA Baroda.]

1. The detailed description of Ṛṣis Ekata, Dwita and Trita going to Śveta Dvīpa to see Nārāyaṇa, (given in Śāntiparva in Chapter cccxxvii of the English translation of Mahābhārata by M. N. DUTT, comprising the verses 19 to 55 at pages 538-39-40) and another description of Ṛṣi Nārada going there for the same purpose, and returning successful, (given in Śāntiparva in Chaps cccxxvi, verses 1 to 11, 13 to 16 at pages 535-36, Chap. cccxxviii, verse 39, page 542, Chap. cccxxix verses 1, 2; page 542, Chap. ccxli verses 1 to 7, 11 to 13, 18 to 20, 105, 106, 132, pages 544, 548-49. Chap. ccxliv verses 9, 23, 26, 28, 30 to 33, 38-39, 45, 46, 52, 56, 57. Pages 566-67-68) clearly show that the manifestation of Nārāyaṇa described therein, is nothing but the Arctic phenomena known as Aurora Borealis. Considering the great antiquity of the subject, and also the resulting distortion of the original narrative, from which source it may have entered the Mahābhārata, it is simply wonderful to read the graphic description of the two expeditions to the Arctic. Simple reading of the verses arranged in sequence, as above, is sufficient to convince the readers to warrant this conclusion, yet selecting some very striking passages, I hereunder expound their Scientific and descriptive value.

2. It appears from the relevant portions of the verses that the three Ṛṣis went to the extreme North, “(19-20) Then the Ṛṣis Ekata, Dwita and Trita began the following narration, (21) Once on a time we went to the North for the acquisition of our highest good. (22) Having practised penances for thousands of years (long time) ... we again stood on only one foot, like fixed rods of wood (compare Latin idiom, ‘*Stanes pede in uno.*’) (23) The country where we practised these austerities of penances lies to the North of the mountain of Meru (Altai) and on the shores of the ocean of Milk (White Sea). The object we had in mind was how to see the Divine Nārāyaṇa in His own form.” The steppes between the Ural and the Altai (Meru) mountains was the original home of the ancient Aryans, and there is nothing extraordinary in these Ṛṣis going as far as the Southern shores of the Arctic Ocean, which is called the ocean of Milk or White Sea (Śveta Samudra), because of the permanent snow of the Arctic regions. Such a name of that ocean still survives in the portion of the Arctic, North of Russia, which is still called White Sea. The following verses will show that wishing to see personally the manifestation of Nārāyaṇa or Aurora Borealis, these pioneers of Arctic explorers, reached as far as the white Island (Śveta Dvīpa) which may be Novaia Zemlia. Not knowing perfectly the Arctic conditions, they reached there at a time when the sun was in the south, and so they could see nothing. (25) A voice (or their inclinations?) said, you try to know how you may succeed in seeing that God of great power. (26) On the Northern shores of Ocean of Milk, (White Sea) there is an Island called White Island (Śveta Dvīpa). The men that dwell in that Island have complexions as white as the rays of the moon. (28) They are shorn of senses. They do not live on any sort of food. Their eyes are winkless. Their bodies always emit a sweet smell. (29) All of us proceeded by the way said to the country described. (30) Eagerly desirous of seeing Him, we reached that large Island called White Island. *Arrived there we could see nothing.*” “Being of persevering nature, they commenced further austerities or suffered more privations by staying there for the whole winter, and when the Sun returned, they were able to see the inhabitants of the Island. Thus it is described :—(32) ... we once more began to practise some severe austerities suited to the time and place (staying for the winter or going further north) for a hundred years. (Long time). Upon the termination of our vows (labours) we saw a number of men of auspicious marks.” The descrip-

tion given in the following verses of these denizens of the Arctic regions, is so minute that it is not difficult to immediately identify them as the Seals, Musk-oxes, Walruses, and perhaps the White Bear. Giving excellent perfumes, winkless eyes, no external organ of senses, the forelegs always joined, as they thought in prayer, round crowned heads, sixty teeth and eight small ones, paws of the feet joined with a skin having many lines on it etc. etc. leave no doubt on the point. Whiteness of the complexion shows that they must be the grey species of the Seals or some other white species then existing. "(32) All of them were white and looked like the moon. (33) Their hands were always joined in prayer. They were *silently* engaged in meditating on Brahma. (36) All the denizens were perfectly equal in energy, there was no superiority or inferiority there among them."

3. A striking complaint given out in the following verses at once confirms the fact that these denizens of that Island were animals and not human beings. "(47) As we stood among those thousands of men, no one honoured us with a nod. (48) Those ascetics showed no feelings for us." It appears that the only reward they got for all their troubles, was the sight of some big shooting star or meteorite, which dazzled them with its light, and terrified them with its thunder like noise at the time of its fall :—" (37) We then suddenly saw once more a light arise that seemed to be the concentrated effulgence of a thousand Suns. (38) The denizens in a body ran towards that light. (39) We then heard a very loud noise. (40) As regards ourselves, we were suddenly deprived of our senses. Shorn of vision, and strength, and all the senses, we could not behold or feel anything." Having been thus disappointed in their quest, and moreover being somewhat "grown anxious," or terrified, tired and emaciated, they returned to the place whence they had come :—" (45) ... As regards ourselves, stupefied by His illusion, we could not behold Him. (49) We had been greatly tired. Our penances had emaciated us. (55) ... we soon returned to the place we desired.." We can well know the reason of their disappointment because the Aurora Borealis appears in the Arctic regions at an interval of nearly 11 years.

4. The second expedition of that most renowned Ṛṣi Nārada is very important. At the very outset, as the following quotation would prove, he is so confident of success, that he tells those two Ṛṣis Nara and Nārāyaṇa, who appear to be his preceptors, that he had carefully studied the Vedas, or in other words, he had full knowledge necessary for the work in hand and therefore he was sure to see the manifestation :—Nārada says, (Śāntiparva Chap. cccxxvi pages 535-36) "(2) ... I shall now go for seeing your (Nārāyaṇa's) original nature. (3-4) ... I have studied the Vedas carefully. (5-6) ... Why shall I not succeed in seeing that infinite Lord of the Universe?" This indirectly shows that through some source, perhaps Vedas, Nārada knew that the phenomena was due to appear that year.

5. The second most important point is that Nārada possessed some kind of contrivance by which, like the last expedition of Captain Amundsen to the North Pole, he flew from Himalayas to the White Island. The quotations are :—" (5-6) After such honours had been exchanged, the son of Parameṣṭhi (Nārada) left the spot. (7) Endued with high Yoga power, Nārada suddenly soared into the sky and reached the summit of the mountains of Meru (Altai) " whether such a feat was possible because the Ṛṣi had mastered the Universal Law of Gravitation, or whether he had some mechanical contrivance, we cannot say ; but the fact that he flew to his destination and back is clearly recorded there. :— (Chap. ccxl p. 549) (132) passing through the sky to the Ocean of Milk (White Sea) " which is always the abode of nectar (snow ?) and adoring the Great God there, he returned to his own hermitage." (Chap. ccxlv) (33) Passing through the skies, he speedily got down upon that extensive retreat known by the name of Badri." I think we should not hesitate in believing that Ṛṣi Nārada flew to the Arctic regions, because we positively know that even the most civilized nations of the West believe beyond doubt that the ancients as far back as 400 B.C. knew the art of mechanical flying. We find in *Modern Cyclopaedia* (Vol. 1 P. 222) against Archytas, that this Greek had actually invented a flying pegan. Such a conclusion of the Western Scholars of Greek can only be based on the ancient written records supported by different authors. Now if this is a sufficient proof, acknowledged by all, that such an invention was a reality 2400 years ago, we cannot be accused of romancing

if we believe it on the strength of almost all Sanskrit Scriptures, which unanimously ascribe the *art of flying with his vīmā*, to the Ṛṣi Nārada.

5. The third point in this narrative is the approximate distance of the Arctic regions from the mountain Meru (Altai mountains from whence the Aryans spread in all directions). It is thus definitely recorded that the distance from Meru to White Island is nearly 32000 Yojanas. “(7) Proceeding to a secluded spot on that summit, the great ascetic took rest for a short time, (8) He then cast his eyes towards the North-Western direction and saw an exceedingly wonderful spectacle. Towards the North in the Ocean of Milk (White Sea), there is a large Island called White Island (Sveta Dvīpa). (9) The learned say that its distance from the mountains of Meru (Altai) is greater than *thirty two thousand Yojanas*.” If we take 1 Yojana equal to 8 miles, relying on the various authorities on the subject, then the figures of the distance become fictitious, but if we suppose that the standard of measurements of the ancient Greeks and the ancient Aryans must bear some similarity, because there are hundreds and hundreds of such similarities in astronomy, mythology, and other accounts, then the figures of the distance of the Arctic Zone from Mount Meru at once become a reality, and wonderfully nice calculation. If on the above supposition, we take 1 Yojana equal to 1 Stadium, then 32000 Stadia would be equal to nearly 3550 miles. This is the exact distance from Altai Mountains Lat. 48 N. to Novaia Zemlia or Cape Chelyuskin Lat. 75 N. This point is not based on any recognised authority, nevertheless I find it worth considering.

7. The fourth point is the two important passages which prove beyond doubt that the description applies to the Arctic regions. The first runs. “(12) With these tongues they seemed to lick the *very Sun whose face is turned towards all sides*.” This at once shows that it applies to the Arctic Sun, which makes an apparent circle there, from the East to the South, then to the West and North and back to the East after 24 hours, and his face is turned towards all the sides of the points of the compass. For the persons on this side of the Arctic circle, the Sun’s face is always turned only on one side, i.e. towards the West. The second passage describes” (Chap. cccxlv) (57) The Sun warms not Soma (moon) does not adorn the region where He lives. This also is true about these regions, and it is quite possible that at the time of Nārada’s visit the moon also may not have risen. The exact description of the denizens of these places also leave no doubt on the point. :—“(9) The inhabitants of that realm have no senses. They live without food, their eyes are winkless. They always send forth excellent perfumes. 10 Their complexions are white. Their bones and bodies are as hard as adamant. (11) Their heads seem to be like umbrellas. Each of them have four testes. The soles of their feet have hundreds of lines. They had sixty white teeth and eight small ones.”

8. The fifth point is the exact description of the Aurora Borealis, and the various colours of which it is composed. I wonder whether the present day visitors of these places can give us such a vivid pen-picture of this phenomena (Chap. cccxlvll, Arrived at the spacious kingdom called White Island (Sveta Dvīpa) the illustrious Ṛṣi saw those same white men of effulgence like the Sun, (2) ... Desirous of seeing Nārāyaṇa, he began to live there. (Chap. cccxl. P. 544). (1) Thus sung with the names that were not known to others, the Divine Nārāyaṇa, having the Universe for His form (covering the horizon from one end to the other?) appeared before the ascetic Nārada. (2) His form was somewhat purer than the moon, and differed from the moon in some particulars. He somewhat resembled a burning fire in complexion. The powerful Lord was somewhat of the form of Viṣṭi. (3) He looked in some respects like the feathers of the parrot, and in some a collection of pure crystal. He resembled in some respects a hill of antimony, (black) and in some a mass of pure gold. (4) His complexion somewhat resembled the coral when first formed, and somewhat white. That complexion resembled in some respects the colour of gold and in some that of the Lapis Lazulus. (5) It resembled in some respects the colour of the blue Lapis Lazulus and in some of sapphire. It resembled in some respects the colour of the peacock’s neck, and in some that of a string of pearls. Bearing these various sorts of hues on His body, the Eternal Deity appeared before Nārada, (7) ... He seemed

to be still inconceivable to the mind. With one of his mouths. He uttered the syllable "Om" and then the Gayatri following Om. (15) ... The Holy and illustrious God, of Universal and Immutable form, having said these words to Nārāḍa, *disappeared there and then.*" A sight of the coloured Plate of Aurora Borealis given in one of the volumes of the Book Of Knowledge, is sure to convince the most critical reader that the so called manifestation of Nārāyaṇa is neither a fiction nor Mythology, *but a really true and personally verified Truth.*

9. The sixth point is the attribution of speech to this phenomena. "(7) With one of His mouths He uttered the syllable Om, and then the Gayatri following Om." At first it appears that it is only the poetic imagination which attributes the power of utterance or making a sound to such a purely terrestrial manifestation. But in reality it is not so. We know that Aurora Borealis invariably makes a low soft beautiful sound as of a rustling of a silk cloth with another, or like the sound of wind blowing against the flame of a candle. (*Cyclopædia*) Now, the statement that Nārāyaṇa first uttered "Om" followed by Gayatri, does not go to make the whole statement incredulous, but on the other hand it at once confirms the truth, that the manifestation is accompanied by a soft beautiful sound. To set such natural sounds, as those of the roaring sea, or of the blowing wind, or of the moving train, to any of our known musical conceptions is not in the least uncommon or to be taken as unbelievable.

10. The last point is that both the accounts tally in ascribing to the journey all the hardships, dangers and other privations. Ṛṣis Ekata, Dwita and Trita state that, "(22) Having practised penances (suffered hardships). (23) The country where we practised these austerities of penances, lies to the North of the mountains of Meru and on the shores of the Ocean of Milk. (31) One who had not practised sufficient penances could not see Nārāyaṇa. (32) We once more began to practise some severe austerities suited to the time and place (staying for another winter or going further North). (46) Our hearts became stricken with anxiety. (49) We had been greatly tired. Our penances had emaciated us." Ṛṣi Nārada's account says: "(7) Proceeding to a spot on that summit, the great Ascetic took rest for a short time. (32) Nārada said to himself, "having gone to such a distance, I have returned safe and sound!" One missing point in the whole description is that extreme cold is nowhere mentioned. For this I can only give the explanation that the dwellers of the snowy Himalayas or the Altai mountains would not find the cold so painful as to record it scrupulously.

With this, I leave it for the readers to form true conception of this extraordinary phenomenon of this Living Cell (The Earth), made up of minute portion of Living and vast portion of inanimate atoms, receiving its due share of the Life giving Solar energy from the parent Sun, situated at the heart of the Solar system, and reviving the Cellular Bodies moving round Him.

Note:—In Ural-Altaic language, Altai means "mountain of gold" and in Sanskrit Meru is described also as mountain of gold, and Greeco-Aryans from this original home, spread westward, and inhabited Assujriya and Babylonia, where they were valled Sumerians or people from Sumeru. A reference to *Modern Cyclopædia* under Altai would show clearer meaning.

Bhayawadar House.
Chittal. (Kathiawad).

ANAKCHANDRA

EDWARD HAMILTON JOHNSTON, 1885-1942

The death of Professor JOHNSTON which brought shock to his friends and colleagues in Oxford, will have been widely deplored among orientalisists generally. Elected in 1937 as Boden Professor of Sanskrit and Keeper of the Indian Institute, and admitted as a Professorial Fellow of Balliol, he was still, at the age of 57, favourably situated for a long continuation of the highly congenial work to which he had brought a vigorous competence. The few

war-time students of Sanskrit at Oxford had always found him accessible and helpful in their researches; and he had taken up with keen interest the task of cataloguing the very extensive collection of Sanskrit MSS. procured for the Bodleian in 1907 by Professor A. A. MACDONELL and subsequently hand-listed by the late Mr. GAMBIAR-PERRY. He had also compiled for the India Office Library one Part of its "Catalogue of European MSS." In the Indian Institute he had applied his archaeological *flair* and his familiarity with things Indian to the improvement and rearrangement of the Museum. In the Royal Asiatic Society's *Journal* (1938) he published an account of one of its old possessions, the "Gopalpur bricks", and he was engaged upon the interpretation of an inscription informative in regard to the early history of Pegu. More personally he was preparing an edition of a difficult ancient text of Northern Buddhist dogmatics, the *Uttara-tantra*, based upon old Sanskrit MSS. procured in Tibet by the Rev. Rāhula Sāṅkṛtyāyana; of which text he had previously (*BSOS.*, viii, pp. 77-89), in collaboration with Professor H. W. BAILEY, published a Central-Asian fragment in Saka-Khotani transliteration with notes in that language.

JOHNSTON's introduction to work as an orientalist had been gradual. Born in 1885 (26th March), second son of R. E. JOHNSTON, a Governor of the Bank of England, he had his schooling at Eton, whence in 1904 he proceeded to Oxford as a Mathematical Exhibitioner of New College. After a First Class (1905) in Mathematical Mods he found History more to his taste and in that subject he took another First Class in 1907. He passed into the Indian Civil Service, and after the probationary period, at the close of which he won the Boden Sanskrit Scholarship, he arrived in India in November, 1909, having been appointed to Bengal, afterwards Bihar and Orissa.

Of JOHNSTON's official career in India no very personal details are available. As Assistant Magistrate and Collector, he served at first in Midnapore and afterwards mainly in South (but with one period in North) Bihar (Ranchi, Patna, etc.). During about three years (1915-18) he was Under-Secretary in the Revenue and other Departments, and in the Home Department of the Government of India. As early as 1920, after being "Joint", he became Magistrate and Collector (Imperial Service), being stationed in Monghyr. He seems to have been observant, as indeed was desirable in his office, of indigenous agricultural and other practices to which in his subsequent studies of ancient texts he sometimes appealed. But it was, it seems, not until later that he realized the great value of the Buchanan-Hamilton Survey Reports and Journals, which during the last thirty years have so creditably been edited on behalf of the Bihar Government and the Bihar and Orissa Research Society. From 1915 JOHNSTON was during some years a member of that Society, and his one traceable publication during his Indian period was printed in its *Journal* for 1920 (pp. 322-3), being an account of a statue group, of mediæval date, excavated at a village in the Begusarai Subdivision. Early in 1924 he took the option of retirement after fifteen years' service. Having won a wife, in the person of Iris Olivia Helena, third daughter of the late Sir Henry MAY, of Clare Priory, Suffolk, he settled down at Adderbury, a charming village some twenty miles north of Oxford.

Having the Oxford libraries within reach, JOHNSTON now devoted himself to systematic Sanskrit studies. His first task was the examination of a very old MS. of Aśvaghōṣa's famous poem, *Buddhacarita*, "Life of Buddha"; a MS. temporarily deposited in Oxford by the Nepal Government. A collation of this MS. was his first contribution (1927) to the Royal Asiatic Society's *Journal*. His attention had already been drawn to the Tibetan version, indirectly used to some extent in COWELL's *editio princeps* of the Sanskrit, and he had afterwards also consulted Dr. WELLER's part publication of it. His own edition and translation of the Sanskrit, which required not only a detailed comparison with the Tibetan and then, moreover—a large moreover—with a Chinese rendering, but also an examination of the numerous studies which had followed upon COWELL's publication, was to be a work *de longue haleine*. In the meanwhile he turned to another famous poem by the same author, the *Saundarananda*, which had been brought to light by Haraprasād ŚĀSTRĪ in 1910: here also JOHNSTON was able to use the excellent old MSS., generously lent by the Nepal Government. There being no Tibetan or Chinese version to complicate the task, and the critical



Professor E. H. JOHNSTON.
(1885-1942)

discussions having been fewer, the improved text could be published (by the Oxford University Press, Punjab University Oriental Publications) as early as 1928 : in 1932 it was followed by a translation (No. 14 of the same series), entitled *The Saundarananda, or Nanda the Fair*. The edition and translation (2 vols., Nos. 31 and 32 of the series, 1936) of the *Buddha-carita*, presented a revised text with full critical notes, omitting, however, references to prior conjectures confirmed by the new MS.—a rendering, exact but readable, with searching commentary on the matter and the Sanskrit expressions, a long introduction concerning the author, his writings, his religious and sectarian attachments, his use of language and metre, his learning and allusions and his poetic quality. The work, in connection with which JOHNSTON had perused the whole Pali canon of Buddhism and which is comprehensive in citations of Sanskrit texts and the literature relating to them, is a credit to British scholarship. The incompleteness of the Sanskrit text was subsequently in *Acta Orientalia*, vols. xv, 1936-7, mitigated by a translation, direct from the Tibetan version (but with consultation of the Chinese), of the missing (xv-xxviii) cantos of the poem. The merit of JOHNSTON'S work, which included a long paper (*JRAS.*, 1931, pp. 565-592) of original "Notes on some Pali words", was recognized in 1933 by the University of Oxford, which approved his application for the Degree of D.LITT.

In connection with Aśvaghoṣa's allusions JOHNSTON had taken into consideration the obscure beginnings of the Indian philosophical systems, especially Sāṃkhya and Yoga. In 1930 he contributed to the *Journal* an elaborate study of a cryptic passage in the *Svetāśvatara Upaniṣad* ("Some Sāṃkhya and Yoga conceptions of the Ś.U."), wherein he sought to evince a transition stage as regards some particulars of Sāṃkhya doctrine, adducing also even from the *Taitva-samāsa* traces of the views prior to the classical Sāṃkhya of Īśvara-kṛṣṇa's *Kārikā*. More generally he treated the same subject in a volume of modest size, printed as vol. xv (1937) of the R. A. Society's Prize Publication Fund Series. Here the discussion was expressly limited to the development shown by leading expressions in the terminology : the argument, being extremely close and involving citation of innumerable passages from a wide literature, largely of problematic date, could be followed and evaluated only with equal scrutiny in detail. The conclusions (pp. 80-8) affirm a long and complex transformation of early notions, contemplating primarily the psychology and destiny of the individual, into the cosmological system of the *Kārikā*. There are many comparisons with Buddhist ideas and references to the evidential value of Aśvaghoṣa's criticisms, which first prompted the inquiry.

The Kauṭaliya *Artha-śāstra*, the primary treatise (recovered during the present century) on government organization, policy, and action, was the subject of two articles contributed to the *Journal*, one (1929) dealing with Buddhist references to the immoral principles of the science and with matters of land-tenure and agriculture, the other (1936) a brief discussion of a text concerning cattle-theft. Here JOHNSTON was able to bring light from his official experience in India and to point the argument from Aśvaghoṣa's citations in favour of an early date (prior, perhaps long prior, to 250 A.D.) of the Śāstra text : he was inclined to recognize indications connecting the text with Bihar or Central India.

Suggested by criticism of writings by other scholars were JOHNSTON'S brief paper on the *Vardhamāna* symbol (*JRAS.*, 1932), a topic originally mooted by himself, and his long, and largely controversial, discussion (1939, pp. 217-240) of "Demetrius in Sind". His last papers were a note on "Bird-names in the Indian dialects" (*BROS.*, viii, pp. 599-601), that on "The *Tridaṇḍamālā* of Aśvaghoṣa" (*JBORS.*, 1939, pp. 11-14), and his "Ctesias on Indian Manna" (*JRAS.*, 1942).

From about 1931 JOHNSTON frequently contributed to this *Journal* reviews, which ranged widely over the fields of Sanskrit literature and philosophy, as well as of Pali and Tibetan. He never failed, despite the brevity now usual, to manifest by definite comments or criticisms a serious examination of the matter reviewed.

JOHNSTON'S household of three sons and three daughters included children of his brother, predeceased. In 1935 he moved from Adderburg into Oxford. Upon the outbreak of the war Mrs. JOHNSTON and most of the family left, like so many Oxford families, to reside in

America, while JOHNSTON himself took up the life of an "unmarried don" in Balliol College spending his mornings in the Indian Institute, where, as Keeper, he had also to superintend the elaborate provision for war contingencies. From the outset of hostilities he rendered full service as an Air Raid Warden and Home Guard. In the Royal Asiatic Society, which he joined as long ago as 1909, he served from 1935 as a member of its Council.

F. W. THOMAS

ANTIQUITY OF THE CASTE-NAME OF THE KARHADA BRAHMS

[I have great pleasure in publishing below the remarks of my friend Mr. Y. R. GUPTA on my paper on the Karhāḍa Brahms recently published in the *History of the Gunje Family* by V. T. GUNE,

—P. K. GODE.]

My dear Prof. GODE,

I have gone cursorily through "Karhāḍe Brāhmaṇachya Itihāsāchi Sādhane and Gune Gharānyāchā itihāsa, Vols. I and II, published by Rao Bahadur G. S. SARDESAI on the 21st June 1944. I have read your article in it with great interest. Rather I have studied it.

On page 105 you remark :—"This grant is dated 23rd April 1810. Mr. GUPTA thinks that from this time the term "Karhāḍe Brāhmaṇ"—"Karhada Brāhmaṇ" may have come into existence. If this statement is corroborated by further evidence, it would prove that the term "Karhāḍe Brāhmaṇa" is about 1135 years old. But as Mr. GUPTA does not produce any evidence on the point, the 1135 years-antiquity for the caste-name "Karhāḍa" remains questionable.

You will note that a caste-name does not all at once spring up. Only an approximate age can be fixed. I have not given a definite date. I have noted a margin—a probability or a possibility.

On page 36 of the second edition of "Karhāḍ", I have quoted a letter from Rao Bahadur DIKSHIT who translates that a field and a house were bestowed upon Prabhākara Ghaisās and Vāsiyāna Ghaisās Karhāḍe Brāhmaṇas for the Pañchopachār pūjā of Umā-maheśvar etc. Rao Bahadur C. V. VAIDYA says that Karhāḍaka (Karahātaka in the original passage) clearly denotes a sub-caste of Brāhmaṇs. The grant in which these names are mentioned is dated 25th December 1190 A.D. Well then the antiquity of the Karhāḍe Brāhmaṇs is according to it at least 754 years old. In the Rāshtrakūṭa grant of 930 A.D. mentioned on page 474 of Mr. GUNE's book, as 240 Brāhmaṇs out of 1000 have been provided for, it is in all probabilities a caste-name rather than a place-name. This would assign an antiquity of 1014 years for the Karhāḍa Brāhmaṇas. Is then the antiquity of 1135 years for them imaginary?

On page 475 of Mr. GUNE's book you mention Sahavāsi Brāhmaṇs along with Karhāḍe Brāhmaṇs against the date 1191-92. The documents of some of them are still at Karhāḍ. Mr. Pandu Anna SHIRALKAR and Mr. KOLHAPURE belong to this sub-caste. Please consider this fact along with the remarks of the Rajasaheb of Aundh. The Rajasaheb asserts that the family goddess of the Karhāḍe families is usually in the Goa territory. I know from the assertions of some families round about Karhāḍ, where I twice served as the Sub-Registrar of the sub-district that the family goddess of a branch at any rate of the Karhāḍe Brāhmaṇs was the Mahālakshmi of Kolhapur. There was also a temple of the goddess Lakshmi at Karhāḍ which along with the image was desecrated. But the remains are still there. I can produce a photograph. The image was found later on and was enshrined near the river Kṛishṇā with the permission of the Musalman rulers of Bijapur. It is still called

"Uttarā Lakshmī." The inhabitants have to visit it before celebrating a marriage or a thread-ceremony. The workmanship is of the Śilāhāra period. I am of opinion that the goddess was called "Uttarā-Lakshmī" as it was enshrined in the northern territory of the Śilāhāras. The Lakshmī at Kolhapur, called Mahā-Lakshmī was worshipped in the southern kingdom. Both the images were worshipped by the Karhāḍe Brāhmaṇs. They were trusted and learned and were held in high esteem especially during the Śilāhāra period. They settled in a number of places as the territories of the Śilāhāras expanded.

At present the Sapre, the Navāthi and the Chirmule families are well known at Karhāḍ.

Poona
24-6-1944.

Yours sincerely,
Y. R. GUPTÉ.

UTTARĀ-LAKSMĪ AT KARHĀḌ

I have shown in the second edition of my pamphlet on Karhāḍ that a grand temple of Lakshmī stood near the Idga at Karhāḍ (Page 11). It was so high that its shade could touch the river side. Several stones on which images are carved could be traced in the built wall of the Idga. Masons' marks of the 12th or the 13th century A.D. are found on a good many of them.

The goddess at Karhāḍ formerly enshrined in this temple and now to be seen in the one in Bahirobachi Ali is known as Uttarā-Lakshmī. It is very probable that she may have been called Uttarā-Lakshmī, to distinguish it from the Mahālakshmī at Kolhapur, as Karhāḍ was included in the northern boundaries of the Śilāhāras. She was the popular goddess in these boundaries.

The Mahālakshmī at Kolhapur was the titular goddess of the Śilāhāras. She is, as we know, shown as very young. The Uttarā-Lakshmī at Karhāḍ is of the Mahiṣāsura-mardini type. The temple of Durdaityanāśini Lakshmī or Daitya-nivāriṇī is situated near the Koyana bridge. But it is modern, though the site might have been older.

The image of Uttarā-Lakshmī is of black basalt. The workmanship is of the 12th or the 13th century A.D. One legend is that the image was thrown into the pond, the site was attacked by the Muhammadans and another substituted. It was shifted to Bahirobachi Ali later on. Another story runs that it was buried in the sand by the worshippers near the confluence of the Krishna and the Koyana and was installed later on when the danger was past.

The goddess has three bends in her body and has high breasts as is required. Her waist is thin. The figure has much in common with the description given in the Śilparatna. The back-ground, however, is peculiar, having apparently a conventional lion's mouth.

Poona 5.

Y. R. GUPTÉ.

FURTHER NOTE ON AŚOKAN FORM ETC.

My sin has found me out at last. Three years back I was asked to contribute a paper to a volume to be presented to Professor KANE. I wrote a note on a subject then engaging my attention and it made its appearance when the volume saw light in May 1941. I hardly realised at the moment that my improper curiosity constituted a criminal trespass into the fair preserves of philologists. An inoffensive member of that gentle fraternity brooded over the wrong I did to his favourite muse for two years and more before he could compose himself sufficiently to haul me before the bar of public opinion.* Thirty two months over a note of eighty lines, each of 15 words or less! Merciful God, what patience! Theirs will doubtless be the Kingdom of Heaven!

If the indictment had been limited to trespass alone I would have pleaded guilty and be done with it. But the ingenuity of the learned philologist has fathered on me things I never said, comments I never made and theories I never propounded.

According to him I am responsible for the following statements:

1. "D. Antonio wrote a book named, 'Brahman-Roman-Catholic Sambad'".
2. "The district of Dacca [is] the place where Antonio had been residing at the time of writing his book."
3. "He says that the East Bengal dialect has on the whole, remained unchanged upto now at least from the 17th century."

I am constrained to plead "not guilty." No Sir, that's not my baby.

I do not know whether Dom Antonio's work bore a Bengali title and if so what exactly it was. The Portuguese title of the Evora manuscript has been correctly quoted in my note (p. 417). I never said that D. Antonio ever visited Dacca or lived in that District. On the contrary, I clearly stated in my introduction to Antonio's text that he worked first at Bhusna (now in the District of Faridpur) and subsequently at Koshabhanga, a village I have not as yet been able to locate and even a cursory scrutiny of the text will convince people not too much preoccupied with the mysteries of philology that Dom Antonio did not revel in the dialect of Dacca. But I cannot expect a really learned man to take so much trouble before holding 'pseudo-learned people' to scorn and ridicule. I am afraid I wrote of Eastern Bengal dialects and not dialect (see p. 419. On p. 418 the plural ending is indeed lacking but at this distance of time it is not possible for me to say to what it is due, my oversight, the typist's carelessness or the printer's devil?) In my ignorance I did not know that the people of Dacca spoke the same dialect as the peasants of Chittagong and the rural folk of Birbhum and Bankura commonly expressed themselves in the cockney Bengali of Calcutta. But since it is authoritatively stated that there is one Western dialect which is regarded as 'standard' and one Eastern dialect which is nothing but 'vulgar speech,' I humbly accept it as a philological discovery beyond dispute. I did not say that "the dialect of East-Bengal remained unchanged at least for two hundred and fifty years." What I did say is that Dom Antonio's "Vocabulary goes a long way to prove that the phonetics of the Eastern Bengal dialects except in a very few cases, has undergone but slight or no variation during the last two centuries and half." I thought philology did make a distinction between the vocabulary of a dialect and its phonology. Some of the East Bengal dialects have undergone some remarkable changes, so far as vocabulary is concerned, during the last forty-five years. But let me pay my homage where it is due. I recognise a work of art when I see one. What a superb artist my philologist friend is! A gentle imperceptible twist and my meaning is distorted out of all recognition! Who says that philology is a mere science and an imperfect one at that!

* *New Indian Antiquary* Vol. VI pp. 186-188.

Now for my crime and its background! As early as 1850 J. D. CUNHA RIVARA referred to D. Antonio's work in the first volume of his catalogue of manuscripts in the Public Library of Evora. During the last 94 years the Dacca philologists must have often thumbed this volume but this particular reference left them uninquisitive, though seventeenth century Bengali prose works are believed to be rare. In 1914 Father HOSTEN, another foreigner mentioned this work in the *Bengal: Past and Present* (Vol. XI, pp. 40-63). But so far as I am aware no effort was made to obtain a transcription of the manuscript, the literary and philological worth of which was yet to be appraised. In 1925 I tried to draw the attention of Bengali scholars to this work, but in vain. In 1926 I travelled to Evora and transcribed the major part of the manuscript much to the detriment of my legitimate vocation as a student of history. This was no doubt an act of petty larceny and I plead guilty to the charge. In 1927 I published a brief account of the Evora Manuscript in the *Vārṣik Basumatī* and later printed the first seventeen pages in the now defunct *Upāsana*. I waited for a few years more. No competent scholar offered to edit my transcript and at last in 1937, after an interval of a decade, a student of history had to figure as editor of an old Bengali prose tract, an unusual role for him. This may amount to culpable homicide and again I plead guilty. The text was edited with insufficient equipment and many archaic forms and obsolete words offered puzzles I could not solve. But even after the publication of Dom Antonio's work no philologist came to its rescue.¹ When I found fresh information I placed them before the general public in the form of notes. This folly on my part accounts for a note on Manoel da Assumpção in the *Calcutta Review* (July, 1940). But the most enormous crime of my life, the darkest of all, was committed when I noticed the identity of form in which one particular word occurred in Dom Antonio's prose and the Gīrnar, Shabazgarhi and Mansera versions of Asoka's edicts. I deemed that this coincidence, if coincidence it was, deserved further investigation.² Hence the note in the Volume presented to Prof. KANE. But unfortunately for me, instead of the light I had sought, came scorching heat and withering scorn from Dacca and that again after an interval of thirty-two months.

I do not know whether my critic is in any way connected with the legal profession but his method of approach bears some resemblance to that of a lawyer. The plaintiff's case, my Lord, is barred by limitation, if that plea is ruled, his claim is certainly *malafide*, if even that objection fails it is covered by Robson, C. J.'s Judgment in *Rex v. X*. The Evora manuscript is not dependable, my prosecutor argues, if that argument fails, the form 'prob' need not be seriously treated as it might have been due to a clerical error to the personal idiosyncrasy of the scribe and lastly in the Asokan inscriptions although the word is spelt one way it should be pronounced differently, vide BÜHLER and HULTZSCH and so Q. E. D.

I do not propose to waste more ink and paper over this. The manuscript bears the handwriting of Jorge da Apresentação and was prepared under the supervision of Manoel da Assumpção. There cannot therefore be any doubt about its date. Fortunately Assumpção's prose works have come down to us and a comparison will convince anybody about the antiquity of the language, though in the absence of the original text the absolute fidelity of the present transcript cannot be strictly proved. If a word is spelt four times in one particular way and does not occur in any other form in the entire work it can hardly be dismissed as a clerical error, nor can it be attributed to the personal idiosyncrasy of the scribe when it occurs in such widely different areas as Bengal, Kathiawad and N. W. F. provinces in widely different ages. If three, if not four, scribes living in different parts of the country suffer from an identical personal idiosyncrasy the phenomenon certainly demands investigation. Obviously my friend's idiosyncrasy is to give the dog a bad name and a student of history may silently ignore it. But a student of psychology may find in it much food for reflection.

1. An exception is provided by Dr. S. K. CHATTERJI who has correctly represented my views in his Bengali article on Kṛipar Śāstrer Arthabhed' (*Sāhitya Pariṣat Patrikā*, Vol. XLVI, pp. 48-56), and elsewhere.

2. This problem was stated explicitly enough in an article contributed by me to the *Sāhitya Pariṣat Patrikā* in 1940 (Vol. XLVI, pp. 294-295), but no notice seems to have been taken of it.

Lastly for the *obiter dicta* of HULTZSCH and BÜHLER. As my friend asserts, his neighbours write *sakal* but pronounce it as *hakal*, but can he cite a single instance of a man writing *hakal* and pronouncing it as *sakal*? I am sure *nila*, *purostap* and *omerto* in the Evora manuscript should have been *līlā*, *prastāv* and *amṛita*, but is there the least doubt that the scribe's rendering of these vulgar forms was phonetic or he spelt them as he pronounced? When a student hailing from a particular part of Bengal writes 'Elizabeth' or 'shudh', does he want them to be pronounced 'Elizabeth' and 'shodh' respectively? I was not in the least concerned with the correct form but the scribe's way of pronouncing and spelling it. I did not know that philology took no notice of vulgar forms.

Lastly, I never said that these Asokan forms have survived to our own days or penetrated to the Jungles of Bhawal. The very title of my note will give a lie direct to such an assertion. As for my critic's enquiry about what I meant by Modern Bengali, my meaning is quite obvious and I can assure him that if, instead of dismissing everything as utter nonsense, he carefully studies the different dialects of Bengal, he will find many Western Prakrit forms still extant not only in Eastern but in Western Bengal as well.

As for the particular Asokan form noticed in my note it must be either a case of survival or an instance of migration and survival. How the migration took place I do not know. It is a subject worthy of investigation and as such I presented it to the scholarly public. Whether my contention is foolish is for the experts to judge! Meanwhile, young horns may be sharpened against old trunks.

I may assure the good votary of philology that the future of his science is not likely to be more affected by such casual incursion as 'amateurs' like me may make into it than the fair reputation of the Dacca University by his erudite expostulations. Lastly, I offer my congratulations to Messrs. KATRE and GODE. An uncommonly gifted academicien with encyclopædic equipment competent to appraise correctly and critically papers dealing with such diverse subjects as Vedic and Epic Literature, Mughal and Maratha history, Archaeology and Art, Philology and Political Science, Tamil and Kannada literature, Purana and Smṛiti, Philosophy and Anthropology sat in judgment over their editorial work and his considered verdict is that they were guilty of one error only in seventy-four!

New Delhi

S. N. SEN.

ANANDA VARDHANA'S TREATMENT OF SAMGHATANA

The term *Samghaṭanā* is not defined, but we are told that *Samghaṭanā* is of three kinds, namely, *Asamāsā*, *Madhyama-samāsā* and *Dirgha-samāsā*. It is thus a kind of collocation of words, depending on the absence or presence, in varying degrees, of compounded forms. It thus corresponds roughly to Rudraṭa's idea of *Rīti*.

Older writers like Udbhaṭa (as implied by Abhinavagupta) are said to have held that while *Alamkāras* belong to *Śabda* and *Artha* themselves, the *Guṇas* pertain to *Sabdārtha-samghaṭanā*, the former being of the *Avayava* and the latter of the *Avayavin*. As Anandavardhana takes great pains to show that this view is not correct, it is clear that the concept of *Samghaṭanā* was already conventionally established, even if there was perhaps no systematic thinking or exposition of it.

Anandavardhana establishes that the real *Āśraya* of *Guṇa* is *Rasa*, and not *Sabdārthā*, nor *Sabdārtha-samghaṭanā*. If *Guṇas* are sometimes spoken of in relation to *Śabda*, this is done only through *Upacāra*, just like talking of heroism existing in a hero's physical frame.

What then is the relation of *Samghaṭanā* to *Guṇa*, and in what way can the *Samghaṭanā* be said to suggest *Rasa*? If *Rasa* is the *Niyāmaka* of *Guṇa*, what then is the *Niyāmaka* of *Samghaṭanā*? These are some of the problems which Anandavardhana discusses.

Some writers hold that *Samghaṭanā* and *Guṇa* are not different, while others hold that they are different. The latter set of writers, again, differ among themselves; some say that *Guṇa* is the *Āśraya* of *Samghaṭanā*, and others (like Udbhaṭa) think that *Samghaṭanā* is the

Āśraya of *Guṇa*. Considering these views, Ānandavardhana points out that if *Guṇa* and *Samghaṭanā* are taken as identical, or if *Guṇa* is said to depend on *Samghaṭanā* as its *Āśraya*, there is the danger that, like *Samghaṭanā*, which is *Anīyata-viśaya*, the *Guṇa* will also become *Anīyata-viśaya*. 'But' we know that the *Guṇas*, being forms of *Citta-vṛtti* (of *Druti*, *Vistāra* and *Vikāśa*), have their definite scope (*Viśaya*) in relation to particular sentiments or *Rasas*; e.g. *Mādhurya* in *Śṛṅgāra* and *Karuṇa*, *Ojas* in *Raudra* and *Adbhuta*. The *Samghaṭanā*, on the other hand, being dependent on mere compounding of words or *Samāsa*, cannot be said to have any defined scope; as, for instance, it cannot be said that *Dīgha-samāsa* occurs only in *Raudra*, it may occur also in *Śṛṅgāra*; similarly, *Asamāsā Samghaṭanā* is not restricted to *Śṛṅgāra*, but is found also in *Raudra*. Hence, *Samghaṭanā* is *Anīyata-viśaya*, but *Guṇa* is not so; the *Rasa* is the *Niyāmaka* of *Guṇa*, but it is not the *Niyāmaka* of *Samghaṭanā*. The *Guṇa* and *Samghaṭanā*, therefore, are not identical, nor is the *Samghaṭanā* the *Āśraya* of *Guṇa*.

It may be objected that if *Guṇas* are *Śabdāśraya* even through *Upacāra*, they are also *Samghaṭanāśraya*, since there is hardly any *Śabda* which is not in the form of collocation, i.e. *Asamghaṭita*. It is replied that this is not a necessary consequence. Even *Asamghaṭita Śabda* or mere *Varṇa* can, through *Upacāra*, be the source of *Guṇa*. The *Samghaṭanā* is *Anīyata*; and indefinite things cannot be the *Āśraya* of *Guṇa*. By *Upacāra*, therefore, it may be said that *Guṇa* is *Śabdāśraya*, but never *Samghaṭanāśraya* (which is *Anītya Śabdārtha* collection) even by *Upacāra*.

The critic may object that *Samghaṭanā* is not always *Anīyata*; for, even if it admitted that no particular *Samghaṭanā* is found in *Śṛṅgāra*, there is a *Niyama* with regard to *Ojas*, inasmuch as *Asamāsā Samghaṭanā* is not suitable to *Ojas*. The reply to this is that the notion of *Ojas* as involving *Dīgha-samāsa* is only a traditional error, and that there is *Ojas* in such verses of *Bhaṭṭa Nārāyaṇa* as *yo yaḥ śāstram* even though there is no *Dīgha-samāsa*. The *Ojas Guṇa* depends on the *Dīpti* of the mind, which can be brought about with equal effect by *Asamāsa* and *Dīgha-samāsa*, and it does not depend upon mere *Śabdārtha* collocation.

The *Guṇa* primarily belongs to *Rasa*, which is its *Āśraya*; but since words and their collocation can also suggest *Rasa*, the *Samghaṭanā* can also do so, provided it takes the accompanying *Guṇa* as the *Āśraya* (*mādhuryādīn guṇān āśrītya rasān vyanakti*). The *Samghaṭanā*, therefore, is *Guṇāśraya*; it varies with the *Guṇas*; it suggests the *Guṇas*, and through them the *Rasas* to which the *Guṇas* pertain.

From the point of view of *Rasa*, therefore, there is *Niyama* only as regards the *Guṇa*. For it alone *Rasa* is *Niyāmaka*. From the standpoint of *Rasa*, *Samghaṭanā* has no *Niyama*, i.e., the *Rasa* is not a *Niyāmaka* of *Samghaṭanā*, since the rule that certain kinds of *Samghaṭanā* concern certain *Rasas* is often violated. But since *Samghaṭanā* can also be *Rasa-vyāñjaka*, what is the *Niyama* which controls it? It cannot be that *Samghaṭanā* has absolutely no *Niyama*. Its *Niyama*, we are told, is the more comprehensive *Aucītya* of the context, the *Aucītya* of *Vaktṛ*, *Vācya*, *Viśaya* etc., which determines the suitability of *Samāsa-vṛtti* in particular cases. But since these circumstances also constitute the *Niyama Rasa* and, through it, of *Guṇa*, there appears to be some confusion of thought on this issue. Ānandavardhana appears to think that the same comprehensive, even if somewhat vague, *Niyāmaka* of *Aucītya* appears to regulate both *Rasa* (and consequently *Guṇa*) and *Samghaṭanā*.

It is clear that if *Guṇa* is accepted as explained by Ānandavardhana in relation to *Rasa*, the *Samghaṭanā* is, more or less, a superfluous concept, the *Samāsa-vṛtti* being a constituent of the *Guṇas* in their variety. His concern is perhaps not to set forth a theory of *Samghaṭanā*, but to show that the views of earlier writers on the older concept of *Samghaṭanā* is not justifiable; and if it is to be accepted at all, it must be recognised that it is dependent on the *Guṇa*, and admissible only as such, its only *Niyāmaka* being the law of propriety of the context. Later writers, therefore, who generally follow the scheme of poetics standardised by Ānandavardhana, almost ignore *Samghaṭanā* as such. Mammaṭa makes only a passing reference to *Samghaṭanā*, in the same strain, in his chapter on *Guṇa*. Viśvanātha brings in *Samghaṭanā* in his somewhat peculiar exposition of *Rīti* (*pada-samghaṭanā rītiḥ*; *rīteḥ sam-*

ghaṭanā-viśeṣatvāt), which last concept was considered redundant by Anandavardhana, but in which Viśvanātha, following Rudraṭa, makes *Samāsa-vṛtti*, a *sine qua non*. Vidyānātha, however, who belongs to the new school and whose approach to poetry is quite different, rather uncritically accepts Udbhaṭa's view expressed in the dictum : *saṃghaṭanā-dharmāḥ gūṇāḥ* !¹

Dacca University.

ANIMA BOSE.

REVIEWS

The Last Peshwa and the English Commissioners (1818-1851) by Dr. P. C. GUPTA, M.A., PH.D.; S. C. Sarkar and Sons, Calcutta, 1944; Pages 113; Size :—5½" × 8½"; Price Rs. 6/-.

Five years ago Dr. GUPTA published his volume on *Baji Rao II and the East India Company*. Here he traced the story of Baji Rao's life till 1818, when he lost his Peshwaship. The present Volume continues this story to 1851 when he died. Besides the melodramatic story of the Peshwa's life in exile at Bithūr near Cawnpore the volume contains accounts of a number of East India Company's Servants. The author has exploited available materials for this volume in Government Records but he regrets that he could not get enough Marāṭhi materials to add greater interest to his account. Like his earlier volume the present volume is written in a charming style, with a balanced judgment and without any patriotic bias. In this respect he has continued the traditions of his *guru* Dr. Surendranath SEN to whom the volume is dedicated by our author. Such a fully documented piece of careful research will be found useful not only to the research student proper but also to the students of Indian History in our colleges and universities. We congratulate Dr. GUPTA on this creditable performance and also the Publishers on the excellent printing and get-up of the volume.

P. K. GODE.

The Āryā-Śataka of Appayya Dikṣita, edited for the first time by Prof. N. A. GORE, M.A. (S. P. College, Poona 2) with a Sanskrit Commentary by Dr. V. RAGHAVAN, M.A., PH.D., Poona, 1944; Pages 62; Size :—7" × 5"; Price 1-4-0.

Last year Prof. GORE brought out his two useful publications : (1) *Bibliography of the Rāmāyaṇa* and (2) *Rjulaḥvī* or *Mālatīmādhavakathā* of Pūrṇasarasvatī. He has continued this commendable activity by editing critically the small poem *Āryāśataka* by one Appaya Dikṣita who according to the Editor may be the great Appaya Dikṣita (c. 1558-1620 A.D.). In the 100 stanzas the author fervently appeals to God Śiva to receive him into His favour. In spite of the undercurrent of humour the poem reveals to us the sincere devotion of the author to God Śiva. In the brief Critical Introduction, the Editor has dealt with the Manuscript material with some discussion about the Text, Title, The Author and the contents of the Poem. The present edition is based on three MSS from Poona, Wai and Rajapur. Dr. RAGHAVAN's lucid and learned commentary enhances the value of the edition. There are innumerable small works lying unpublished in manuscript form in our MSS Libraries and since the *Kāvya-mālā* (N. S. Press) ceased publication no systematic attempt has been made to edit these works. We trust that Prof. GORE will bring out critical editions of one or two small works every year and thus redeem his debt to Sanskrit Learning in the way he has done hitherto.

P. K. GODE.

SANDANES, NAHAPĀNA, CAṢṬANA AND KANIṢKA : TUNG-LI P'AN-CH'I AND CHINESE TURKESTAN

By

F. W. THOMAS, Bodicote, England.*

I. Sandanes in the PERIPLUS

By the brilliant posthumous article ('Kaniṣka et Sātavāhana', *Journal Asiatique* cccxviii (1936), pp. 61-121), unfortunately unfinished, of the late Professor Sylvain LÉVI, attention was drawn afresh to the old question concerning possible relations between the Kuṣāṇas and the Kṣātrapa and Andhra rulers of the south-west. Citing from the *Periplus*, a work of c. 80 A.D., a passage which states that —

'Kalliena (Kalyan) (was) in the time of Saraganes the elder an open mart ; but, since Sandanes became master of it, it has generally been forbidden : and, in fact, the Greek ships which are accidentally carried towards those parts are conveyed under guard to Barygaza' (*Periplus*, 52, cited by the Abbe BOYER, *J.As.*, IX, xi (1897), p. 138).

He gives strong reasons for believing that *Sandanes* might correspond to a form *Candana*, which he proves to represent a title borne by Kaniṣka I. Thus at the date of the *Periplus* Kaniṣka would have been in control of the ports of Bargaza and Kalyan, and his era would undeniably be identical with the 'Saka' era, commencing in c. 78 A.D.

LÉVI brings this datum into connection with a conflict between a Nahapāna, ruling over Barygaza = Bharukaccha = Broach, and a Sātakarni or Sālivāhana, whose capital was at Paithān = pratiṣṭhāna in the Deccan : a conflict which the late Dr. JAYASWAL, had discovered¹ to have been a theme in early Jaina literature and which was part of the historically well ascertained struggle between the Kṣātrapa rulers in western India and the Andhra dynasty.

We should, however, in the first place scrutinize the import of the passage in the *Periplus*. Evidently it implies that in the altered conditions the two ports, Kalliena and Barygaza, were subject to one authority ; for an independent power interested in Kalliena would not have allowed its trade to be restricted in favour of Barygaza. To the Andhras Kalliena would naturally, as LÉVI showed, be a favoured port, having direct connection with their capital, Paithān = Pratiṣṭhāna. Accordingly we must understand either that Kalliena had been actually taken over by the rulers of Barygaza or that the Andhras, while retaining possession of it, were under some compulsion restricting its use. This might be intelligible, if the situation were as M. LÉVI seems to envisage it, with both the rulers of Barygaza and the Andhras awed by the power of the Kuṣāṇa Kaniṣka.

As regards the prior period it does not follow that Barygaza and Kalliena were under one authority. From the reference in the *Periplus* it is plain that such a single authority could only have been that of 'Saragnes, the elder,' i.e. the Andhras, who might indeed, if controlling both Barygaza and Kalliena, have countenanced the use of both. But, in fact, Barygaza was not, at the period in question, included in the Andhra dominions. This follows from the Kṣātrapa-Andhra chronology, to which we must briefly refer.

* Owing to the present delays in post the proofs have not been corrected by Prof. THOMAS.—Editors, *NIA*.

1. *J. B. & O. R. S.*, XVI (1930), pp. 290 sqq. LÉVI refers also (pp. 98-101) to an Indian tale, first brought to light by HUBER (*B. E. F. d'E-O*, VI, pp. 37-9), which brought Kaniṣka into connection with a Sātavāhana = Sātakarni.

II. *Dating of Nahapāna, Caṣṭana and Gautamīputra Sātakarṇi : coins and palaeography.*

In 1908 it was affirmed by Professor RAPSON (*Catalogue of the Coins of the Andhra Dynasties* . . . , p. xxvii) with reference to the synchronism --

Gautamīputra's year 18 = 124 A.D. or 124 A.D. + X, that --

'On this synchronism, on the recorded regnal dates in the inscrs. of other Andhra sovereigns, and on the known date 72 = 150 A.D. of Rudradāman as Mks. (Mahā-kṣatrapa) rests at present the whole foundation of the later Andhra chronology.'

The argument is that in, or soon after, Nahapāna's year 46, which should be 124 A.D., Gautamīputra had conquered that ruler, who as late as some period in the year 46 was still unconquered, and that this conquest had taken place in, or before, Gautamīputra's 18th regnal year : and that, on the other hand, the Mahā-kṣatrapa Rudradāman had, before his year 72 = 150 A.D., reconquered from Gautamīputra's son, Puṣumāvi, nearly the whole of the territory previously acquired from Nahapāna.

Subsequent discussion and discovery have shown that no reliance can be placed upon the synchronism. This may not involve any sweeping alteration of the later Andhra chronology, in which, if it is agreed that Puṣumāvi was the Sātakarṇi conquered by Rudradāman before 150 A.D., both Puṣumāvi's date and that of his father, Gautamīputra, are moderately fixed. Roughly about 20 years might separate Gautamīputra's conquests from the reconquests of Rudradāman. That Puṣumāvi was ruling in Paiṭhān at some date preceding 140 A.D. is proved by Ptolemy's mention (VII, i, 82) of him and his capital.

The flaw in the synchronism is the supposition that the ruler conquered by Gautamīputra was the Nahapāna for whom we have a date as late as year 46 and that this date belonged to the era used by Rudradāman, namely the Saka era, and corresponded accordingly to 124 A.D. It was recognized, indeed, that the interval of 26 years at most, 124-150 A.D., was short for the events attributed to it, namely the conquest by Gautamīputra, the rule of Rudradāman's father and grandfather, Jayadāman and Caṣṭana, and Rudradāman's reconquests, which might have taken place some years prior to 150 A.D., the date of the inscriptions mentioning them. This difficulty was greatly increased by the discovery of the Andhra inscriptions (*Epigr. Ind.*, XVI, pp. 19-, and plates), which showed that as early as year 52, = 130 A.D., Rudradāman, son of Jayadāman and grandson of Caṣṭana, was a king whose authority prevailed at least in Cutch : for Caṣṭana and Jayadāman there remained at the most only six years. This matter was expounded in two able articles² by the late Rakhaldas BANERJĪ, who further alleged a wide palaeographical interval between the inscriptions connected with Nahapāna and those connected with Rudradāman and his contemporaries. He likewise laid stress upon the fact that the conquests of Gautamīputra are stated to have been at the expense not of Nahapāna but of the Khakharātas, who were indeed the family, or clan, or other connection, of Nahapāna.³ He concluded that the Khakharātas exterminated by Gautamīputra were relatively late descendants, or successors, of Nahapāna.

Rakhaldas BANERJĪ'S argument had evidently impressed Professor LÉVI, who writes (p. 64) of Gautamīputra as having conquered Nahapāna 'or his successor'.⁴ But perhaps neither of the two writers has sufficiently scrutinized the basis of the assumption that the defeated adversary of Gautamīputra was Nahapāna, an assumption which may rank as a signal example of the pitfalls in the way of reconstruction of Indian history.

The ground of the assumption is the existence of large numbers of Nahapāna coins restruck by Gautamīputra's mints. The (over 13,000) coins in the Jugalthembi hoard in-

2. *Ind. Ant.*, 1908, pp. 25-63, and *JRAS*, 1917, pp. 273-289.

3. *Ind. Ant.*, 1908, pp. 43, 63. The suggestion of Professor KONOW (*J. Ind. Hist.*, XII, pp. 39-41), that *Kṣaharāta* was a title, is supported by the occurrence of the designation at Taxilā (*Ep. Indica*, IV, p. 55 n. 7) and also at Mathurā (*ASI Report*, 1911-2, pp. 128-9), in the latter connected perhaps rather with Taxilā than with Western India.

4. An early date (c. 55-100) for Nahapāna was posited by OLDENBERG (see *Indian Antiquary*, X, pp. 225-7), who regarded him as the last of the *Kṣaharātas* (the latter having been subordinate to Azes, etc.) and predecessor of the Western *Kṣatrapas*.

cluded more than 9,000 so restruck.⁵ But even this fact has its dubious aspect. Why should only 'Nahapāna' coins have been restruck? It would have been expected that all coins found officially recognized in the conquered territory should receive Gautamīputra's mark; and the inference seems to be that only Nahapāna coins were found. But the hoard has other surprising features. The Nahapāna coins have legends in three distinct scripts, the Indian Brāhmī and Kharoṣṭhī and Greek, and the two last vary greatly in correctness and completeness, vary, moreover, in such a way that —

'The coins with the most correct form of the Greek inscription have frequently the Kharoshthī legend imperfectly and very badly executed, whilst the best form of the Kharoshthī is found along with a very degenerate form of the Greek.'⁶

The Brāhmī was, of course, the current script of the territories, and on the coins it is invariably correct: the other two came from outside and represent an expiring tradition, their mutually inverse relation in respect to correctness being due perhaps to locality of mint. But there is another feature in the collection which is still more disconcerting. This is the fact that, while the execution of the portraits on the coins is good, the faces portrayed differ in point of age and in every other respect. According to the writer to whom we owe our knowledge of the collection, a difference of age in the persons portrayed fails to explain the facts, and it would be necessary to posit 'a great variety of artists employed' with 'very varied powers of portraiture'.

'If on the other hand we feel constrained to conclude that all these various types of face—short-necked and long-necked, straight-nosed and hook-nosed, low forehead and high forehead, stern-visaged and pleasant-faced, lean face and fat face — cannot possibly represent the same person, then whom do they represent?'

After considering this question Mr. SCOTT arrives (p. 15) at the provisional conclusion that the portraits represent 'a line of Ksharātas or a number of members of the Kshaharāta family, ruling over various parts of the country at the same time', who 'caused their own likenesses to be engraved on the coins, whilst keeping the inscriptions of Nahapāna unchanged as he was the founder of the dynasty'. The concluding expression allows us to infer that Mr. SCOTT, while laying stress upon separation in space, recognizes also differences of time, so that successive generations may play a part: and why not the chief part or the whole drama?

The artificial element in Mr. SCOTT's hypothesis disappears, if we suppose that all the persons portrayed were actually named *Nahapāna*: and why not? We do not need to go outside Europe or England to find successions of rulers in a dynasty bearing the same name (*Henry, Louis*, etc.), to which we add distinguishing numerals: when we come nearer to India, we find in Egypt a succession of Pharaohs and of Ptolemys, and in Parthia *Arsakes* is a standing regnal name of all the kings in the lineage, not to mention other repetitions; in Elymais, contemporary with the Kuṣāṇas and Andhras, ruled a dynasty concerning which we are told (Allotte DE LA FUYE in *Délégation en Perse*, VIII, p. 180) that it is absolutely proved that the name *Kamīnāskires* was borne by several kings. Furthermore, *Nahapāna*, meaning, as was shown long ago, 'People-protector', is eminently suitable for a royal designation: and a synonym, *Nahapati, Nahapet*, 'People — lord', is well-known as a designation of Armenian rulers and in the form *Anahbadh* is given by Al-Bīrūnī⁸ as the title of the kings of Gurjān; cf. also *Nabedes*, name of a General of Khosro I. Whether originally it was the personal name of the Nahapāna who assumed the title 'King' (his predecessor, Bhūmaka, having been merely 'satrap') seems immaterial: the like was the case with the names *Ptolemy, Seleucus* and *Arsaces*. If a Nahapāna has been rightly recognized by the Abbé BOYER (*J.A.S.*, IX, x. (1897), pp. 134-9) in the 'Mambanos' of the *Periplus* (41), that Nahapāna, at any rate, cannot, as the Abbé has already remarked (p. 138), have been contemporary with Gautamīputra.

5. See H. R. SCOTT, *The Nasik Hoard of Nahapana's and Satavahana's Coins* (Bombay, 1907), p. 2.

6. SCOTT, *op. cit.*, p. 12.

7. SCOTT, *op. cit.*, p. 14.

8. *Chronology*, tr. SACHAU, p. 109.

An observation may here be ventured concerning the presence of the three alphabets on the coins. It seems likely that the first combination was Greek script and language *obverse* with *reverse* in local language and script i.e. in Prākṛit and Brāhmī, which in Western India had been current from Aśoka times. This will have been due to the Greeks, who in the Kharoṣṭhī-using region of the north-west had introduced a corresponding practice. The first Saka, Bhūmaka, substituted the Saka-script, namely Kharoṣṭhī, for the Greek, which accordingly is absent from his coins. But the local tradition (of the mints and the public) was strong and demanded Greek letters, which may also have been convenient for the trade. Hence the Greek writing was restored on the obverses; but the government was no longer Greek, and the language was now the local Prākṛit, to which indeed Greek writing may previously to some extent have been applied: the case is similar with the Baktrian language, which Kanīṣka on his coins writes in Greek letters. The Greek writing persisted down to Rudradāman and his successors (see RAPSON, *Coins of the Andhra Dynasty*, etc., p. 78 and n.), and its progressive deterioration would perhaps furnish a good chronological criterion. The Kharoṣṭhī, being essential for Saka rule, was added to the Brāhmī on the reverses: it would be likely to improve for a time, but later to become otiose through Indianization of the Saka rulers; and, in fact, it is not found after Caṣṭana.

What is to be thought concerning Caṣṭana, whose coins show the same combination of Greek, Brāhmī and Kharoṣṭhī script as do those of Nahapāna? He has been supposed to have been partly contemporary with Gautamīputra's son, Siri-Pulmāvi (RAPSON, *op. cit.*, pp. cxiii, CXV), and this has been regarded as harmonizing with the reference by Ptolemy, who was writing his *Geography* during the period c. 140-160 A.D., to Ujjain as royal seat of 'Tiasanes'. But the Andhra inscriptions of year 52 = c. 130 A.D., in which Rudradāman names Caṣṭana and Jayadāman, his grandfather and father respectively, as his predecessors, definitely put such a view out of court. The mention in Ptolemy does not imply contemporaneity any more than if a Chinese writer should introduce Paris to his readers as 'the capital of Napoleon' or 'of the Bourbons': there are in Ptolemy similar references to Madura as 'royal seat of Pandion,' Karoura as 'royal seat of Kerobothros (Kerala-putra),' Hippokoura as 'royal seat of Baleokouros (Vijivāya-kura)', where the names, at any rate as dynastic appellations, were known in times far anterior to Ptolemy. Shall we then, in view of the fact that the coinage of Caṣṭana cannot be 'widely separated, either chronologically or locally' (RAPSON, p. cxii and n. 1), from that of 'Nahapāna', place Caṣṭana rather early, and, since his grandson was king in year 52 of the Saka era, make him the founder of that era, hypothesis which has, in fact, been upheld? There is a passage in the *Periplus* (4) which negatives such a view: it speaks of 'Ujjain, where formerly was the royal seat',¹⁰ and this shows that the royal seat had been either abolished or transferred elsewhere. It is natural to suppose the royal seat to have been that of Caṣṭana, which down to Ptolemy's time was remembered as being at Ujjain and which was not known to have had there a successor. Since the passage in the *Periplus* wherewith Professor LÉVI started the present discussion relates to changes recent at the time of writing, it seems reasonable to connect the abolition or removal of the royal seat with the same events and an approximate date, viz. c. 80 A.D. so that the inauguration of the Saka era in c. 78 A.D. would, if in any way connected with Caṣṭana, more probably relate to a reverse, than to a start or progress in his career. As regards the lettering of Caṣṭana's coins, the small amount of Kharoṣṭhī reproduced from the coins (RAPSON, pp. 73-5) may be somewhat later than what is present by issues of Bhūmaka and the apparently earliest Nahapāna forms; but we do not see anything inconsistent with a date as early as 78 A.D. or even somewhat earlier. The question why in the huge Jogalthembi hoard there are no coins of Caṣṭana or Jayadāman is perhaps one that can be answered, or even put, only by numismatists: it seems to be part of the larger question, why are there likewise no coins of the Sakas and early Kuṣāṇas of the north-west, since trade down the Indus is known to have been a thing well established? A conceivable reason might be that the collection was made by persons having regard only to ordinary currency authorized in the territories.

9. See *Infra*

10. Quoted by LÉVI, pp. 72-3,

As regards a connection between Caṣṣana and the Andhras, the view propounded by OLDENBERG,¹¹ that Caṣṣana was the founder of the Saka era and was appointed by the Andhras, after their victory over the Kṣaharātas, to the governorship of Kāṭhiāwār and the surrounding countries and that he retained the title of *Kṣatrapa* or *Mahā-kṣatrapa*, which had become usual in those parts of India (*op. cit.*, pp. 224, 226), must still meet scepticism on the part of Indianists, who fail to conceive of a 'satrap' recognized by the Andhras, more especially after a long struggle. More reasonable seems to be Professor RAPSON's view (p. cxii) that 'Caṣṣana was appointed by the suzerain power to rule over such provinces as remained after the Andhra conquest, and if possible to regain its lost possessions.' RAPSON does not here, it will be seen, identify the suzerain power, but the general conception is confirmed by the subsequent career of Caṣṣana's grandson, Rudradāman. In accordance, however, with what has been stated *supra* we should hold that Caṣṣana's reduction in status was not due to the Andhra conquest, but long preceded it.

The notion, propounded and developed by Professor KONOW (*Acta Orientalia*, XII, pp. 20-23, *Journal of Indian History*, XII, pp. 43-4) that Caṣṣana was connected with Chinese Turkestan or was 'well-known' there, seems to be a far from plausible deduction from the fact, elicited by F.W.K. MÜLLER,¹² that a collection of tales wherein his name appears was translated from an (unidentified) Ugu-Kūsān language into 'Toxri' and thence into Uigur; a similar argument would, one might think, render Aśoka, Prasenajit, and even Rāma, well known in Central Asia.

The palaeographical argument adduced by BANERJĪ¹³ in favour of a long priority of Nahapāna to Rudradāman cannot perhaps be sustained as it stands. The difference in the Brāhmī script as exemplified in the inscriptions connected with the two kings respectively seems to be more a matter of general appearance, which may reflect merely the particular circumstances of the engraving, than of seizable differences in the actual forms of the letters: and, generally, it may be said that the varieties of the Brāhmī script, when locally established, display in Hindu inscriptions, perhaps owing to paṇḍit influence, a relative fixity of form. But the Kharoṣṭhī of the coins is instructive. Mr. SCOTT, who commends in general (pp. 10-2) the clear and neat forms of the letters, gives on p. 11 a select table of their variations, in which we may draw attention to the forms of *s*, the most decisive test in regard to the age of Kharoṣṭhī writings. The variations represent two well-recognized stages in the history of the sign, one, nearly always relatively early, in which the vertical rises upwards, or obliquely by line or knob, beyond the point of junction, and one in which it does not: these two may be distinguished as Saka and Early Kuṣaṇa and as Kuṣaṇa respectively; and in the earlier group we not infrequently, as in the Mathurā Lion Capital inscriptions, find intrusions of the second form. We might therefore infer that the coins struck by Gautamīputra Sātakarṇi, and others in contemporary circulation, reach as far back as the former of the two periods. But, if we turn to the coins of Nahapāna's predecessor, Bhūmaka, and some Nahapāna coins also, as exhibited by RAPSON on pp. 63-5 and Pl. IX, we find a still earlier form, going back to Aśoka, in which the upward prolongation of the vertical reaches the top of the letter and gives rise to an enclosed space. For parallel use of this form, unexampled in later times, we must go back as far as the early Sakas and Pahlavas, Maues, Azes, Vonones, and Kharahostes.¹⁴ Thus the coins of the Nahapāna dynasty exemplify three stages of development in the form of *s* and so cover a long period, the earliest being more or less contemporary with Vonones and Azes. Considering that the clanname, *Kṣaharāta*, is shared with Taxilā Sakas and also, as mentioned by BANERJĪ,¹⁵ with Mathurā, which also shares the Greek H used as = *h*,¹⁶ that all three have the Greek and Kharoṣṭhī alphabets (the second not persisting with the western satraps after Caṣṣana) and the graded titles *Mahā-kṣatrapa* and *kṣatrapa*, we have the certainty that Bhūmaka

11. *Indian Antiquary*, X, pp. 213-227 = *Zeitschrift für Numismatik*, 1881, pp. 298 sqq.

12. Berlin Academy *Sitzungsberichte*, 1931, pp. 675 sqq.

13. *Ind. Ant.*, 1908, pp. 43, 63, *JRAS*, 1917, p. 275.

14. See BÜHLER, *Indische Paläographie*, p. 29 and Table I.

15. *JRAS*, 1917, p. 274.

16. FLEET, *JRAS*, 1907, pp. 1029, 1041 sqq.

and the first Nahapāna belong to the same epoch as the Taxilā and Mathurā satraps, and so far as the *s* goes (but the old form may have lingered in the south-west), may even antedate the Mathurā Lion Capital.¹⁷

Released from contemporaneity with the Naphapāna of the inscriptions, Gautamīputra Sātakarṇi may yet have come to the throne in c. 106 A.D. and may have reigned until c. 130 A.D., as posited by Professor RAPSON. The dates, however, become considerably looser in their approximation. The cardinal fact is that the reigns of Gautamīputra and his son Puṣumāvi cover a period of at least $24 + 24 = 48$ years and can hardly have exceeded 50 years. Fifty years may be taken therefore as the maximum possible interval between Gautamīputra's conquest of the Khakharātas and Puṣumāvi's defeat by Rudradāman: the minimum possible interval would be that between Gautamīputra's 18th year, when his conquest had already taken place, and the first year of Puṣumāvi, say 7 years; while, if we should allow weight to the reasons given for approximating Puṣumāvi's defeat to his 19th year, the interval would be of c. 25 years. That defeat may have taken place near the year 150 A.D., when it is recorded in Rudradāman's inscription, or near the year 130 A.D., when Rudradāman is, at any rate, already a king. Even in the most extreme case, therefore, Gautamīputra's reign can hardly have commenced more than 50 years before 130 A.D., i.e. earlier than c. 80 A.D.; while, if the interval is of 25 years commencing with Gautamīputra's 18th year, that 18th year was either c. $130 - 25 = 105$ A.D., or c. $150 - 25 = 125$ A.D., or between two, and his first year was either c. $105 - 17 = 88$ A.D., or c. $125 - 17 = 108$ A.D., or between the two.

It follows from this that in no case can any part of Gautamīputra's reign have been contemporary with the information given in the *Periplus*, c. 8 A.D. Probably the reign commenced some 20 and more years after that date, and the defeat of the Khakharātas followed a further interval. Accordingly at the time of the *Periplus* the Khakharātas were still ruling in Barygaza.

III. Tung-li and P'an-ch'i.

So far therefore M. LÉVI's theory, that the Sandanes who at the time of the *Periplus* information was controlling the trade of Barygaza and Kalliena was Candana Kaniṣka the Kuṣāṇa, meets with no obstacle. For it can readily be conceived that the Khakharāta successors of Nahapāna may have been amenable to dictation by the great emperor in regard to Kalliena a Kaniṣka is more likely than the Khakharātas to have been able to impose his will upon its owners, the Andhras.

But LÉVI goes on to adduce evidence in favour of an extensive domination of the Kuṣāṇas in South India. In the *Chinese Later Han Annals*, whose author died in 445 A.D., but which does not record events later than 170 A.D., or more than a limited number later than 125 A.D. (see CHAVANNES in T'oung-pao, II, will (1907), pp. 149-150) there is an account of a kingdom Tung-li,¹⁸ reading as follows:—

'The kingdom of Tung-li has for capital the town Sha-ch'i: it is more than 5000 li (c. 1000 miles) south-east of T'ien-chu (India): it is a great kingdom. The climate and the products of the country are analogous to those of T'ien-chu. It has several dozens of towns of the first order, whereof the chiefs give themselves the title 'king.' The Great Yüeh-chin attacked that kingdom and enslaved it. The men and women there are all eight (Chinese) feet tall: but they are pusillanimous and feeble. Mounted on elephants or camels, they go and come among the neighbouring kingdoms: when attacked, they mount upon elephants to fight.' CHAVANNES, pp. 194-5).

In the *Wei-liao*, a text composed during the period 239-265 A.D. (see CHAVANNES, *Toung-pao*, II, vi (1905), pp. 519-20, and PELLIOI pp. 362-4 the same account is given with a few

17. See D. R. BHANDARKAR, *JBBRAS*, XX, p. 275, and BANERJI, p. 43.

18. Here and in what follows the French transcriptions of Chinese characters are replaced by the normal English ones, according to GILES' *Chinese Dictionary*: where requisite, the inferred pronunciation in the 'Ancient Chinese' of c. the VIth Century A.D. is cited from KARLGREN's *Analytical Dictionary*.

minor variations, viz.— (a) the name of the kingdom is given as *Chü-li*, and it is stated to be also called *Li-wei-t'ê* or *P'ei-li-wang*; (b) the country lies low and is moist and hot: it extends over several thousand *li* from east to west and from south to north; (c) the Yüeh-chih and T'ien-chu (India) had attacked and enslaved the people (further on, 'the Yüeh-chih have enslaved them and laid taxes upon them'); (d) the men and women are all eighteen (instead of 'eight') feet tall.

After dismissing the *Wei-lüo* reading of the name of the country as *Chü-li* (a scriptural error for *Tung-li*, the two variant Chinese characters being similar, LÉVI enters upon an examination (pp. 89-90) of the three forms, *Tung-li*, *Li-wei-i'ê*, *P'ei-li-wang*, and comes to the conclusion that the first two are different attempts to transcribe the name *Dravida*, which he shows to have been a cause of trouble and divergence on the part of transcribers (Greek, Indian, Chinese), while *P'ei-li* may represent the last two syllables of *Dravida* or be connected with the Andhra appellation *vila* (read *viji*): (*vāya-kura*). In regard to the name of the capital, *Sha-ch'i*, he proposes no identification, pointing out, however, that it much resembles one of the Chinese transcriptions of the name of the great city Śāketa = Ayodhyā.

LÉVI does not discuss the practical particulars mentioned in the two notices. The average height of eight Chinese feet (the 'eighteen' of the *Wei-lüo* might be put aside as a numerical slip) would certainly be surprising in Dravidians, and riding on camels is for Southern India at least equally so. Even in the north the camel is not frequently seen east of Allahabad.

Possibly a location of the great country *Tung-li* may be assisted by the somewhat similar case of a country *P'an-ch'i*, *P'an-yüeh* or *Han-yüeh*, mentioned, but not discussed, by LÉVI. Concerning *P'an-ch'i* the *Later Han Annals* inform us merely that—

'When one starts from the kingdom of Kao-fu (Kabul), which belongs to the Yüeh-chin, and takes the south-west direction, one arrives at the western sea; on the east, one reaches the kingdom of *P'an-ch'i*: all these countries are parts of *Shen-tu* (which has already been given as another name of T'ien-chu, 'India', (CHAVANNES, pp. 192-3).

The statement in the *Wei-lüo*, immediately following its description of *Chü* (*Tung*)-*li*, is here rather fuller:

'The kingdom of *P'an-yüeh* is also called *Han-yüeh-wang*: it is at several thousands of *li* to the south-east of T'ien-chu: it neighbours I-pu: the inhabitants are small; they have the same build as the Chinese. Ku'Ssü, who was a man of Shuh (Ssü-ch'uan), went there.

Thus ends the southern route, which, having reached its extreme point in the west, turns back towards the south-east.' (CHAVANNES, pp. 551-2).

CHAVANNES, in a note (p. 193, n. 1) to his translation of the *Later Han Annals*, observes concerning *P'an-yüeh* or *Han-Yüeh-wang* that 'It seems to have been situated in Annam¹⁹ or in Burma'. But it is apparent that it was a country next to *Tung-li* on the route in its south-easterly course: and this does not seem at all to countenance an identification of *Tung-li* with the Dravidian lands. On the other hand, it seems highly unlikely that a part of Burma or Annam, which were more or less known to the Chinese by other routes, should have been regarded by them as the terminal point of the 'southern route', primarily a route through Chinese Turkestan to the 'western countries'. And how could Annam or Burma be included in *Shen-tu* (India)?

It seems that scholars have not sufficiently reckoned with the vagueness of the early Chinese notion of India. The earliest form of its name, brought back by Chang Ch'ien's mission, seems to have been *Shen-tu* (ancient pronunciation *siên-d'uok*, KARLGREN nos. 869, 645); for this form alone appears in connection with the missions which the Chinese pro-

19. In the note on the *Wei-lüo*, *T'oung-pao*, 1905, p. 552, n. 3, 'Assam', not 'Annam', is printed.

ceeded to send.²⁰ The subsequently commoner form *T'ien-chu* (ancient pronunciation *t'ien-t'iu*, KARLGREN 996, 1248) is possibly a perversion, playing upon that Chang Ch'ien reported concerning bamboos in India; for the second syllable has in Chinese the signification 'bamboo'. This form occurs in the *Former Han Annals*,²¹ and that the two names are synonyms is, as we have seen, affirmed by the *Later Han Annals*. The form *sien-d'uok* patently represents a Sanskrit form *Sindhuka*, which would mean the 'Indus country (or people)' and in no Indian language would designate 'India' generally. It is quite natural that from Bāktria Chang Ch'ien should have heard primarily of the 'Indus-land', just as did the Persians and Greeks in the west: and that this was the actual denotation is patent; for in no other sense could Wima-Kadphises have been said to have 'conquered India (T'ien-chu)', and that sense is distinctly contained in the statement²² of the *Later Han Annals* that 'that kingdom borders on a great river' (CHAVANNES, p. 192), sc. the Indus. Practically 'India' was the western Panjāb (with Gandhāra) and Sindh.²³

In the period, however, of the records upon which the *Later Han Annals* were based, and still more in the period represented by the *Wei-lüo*, the definition had become anachronistic: hence the former of the two texts proceeds to define the geographical extent of Shen-tu in the terms cited *supra*. For, not to speak of casual information brought by Buddhist and other travellers through Chinese Turkestan, the Chinese court and literary world had had another source of enlightenment: the *Later Han Annals* relate that—

'Subsequently, during the reign of the emperor Huan, the second (159 A.D.) and fourth (161 A.D.) years *yen-hsi*, they (the Shen-tu people) came on two separate occasions from beyond *Jih-nan* (Tonkin) to bring offerings' (CHAVANNES, p. 194).

This information, which, it will be noted, discounts all statements (e.g. *Acta Orientalia*; II, p. 129) to the effect that 'the source of reliable information' ceased to flow in, or shortly after, A.D. 125,—and on an extensive knowledge of Buddhism in China during the I-II centuries A.D., see PELLIOU in *BEF 'E-O*, VI, pp. 385, sqq., 392 sqq.,—had, as CHAVANNES points out (pp. 185 n. 1, 194, n. 1) taken the sea route, like professed mission of Marcus Aurelius Antoninus in 166 A.D. The accounts given in the *Annals* may represent accordingly both sources.

In the account of Tung-li we can forthwith recognize some items as clearly Central-Asian. The statement that the people were pusillanimous and feeble represents a standing Central-Asian view of Indians, concerning whom the *Annals* state (CHAVANNES, p. 192) that 'they are weaker than the Yüeh-chin'. Of the people of Kao-fu (Kabul) likewise it is said (*ibid.*) that they are 'feeble and easy to enslave'.

That the country is 'low, moist and hot'²⁴ is also a natural observation by a Central-Asian; cf. the Turk Khan's remark to Hsüan-Tsang (BEAL, Life, p. 44). The statement that T'ien-chu is 'at several thousand *li* south-east of the Hsiung-nu' and that 'its manners are similar to those of the Hsiung-nu' must be due to some clerical error;²⁵ just previously it is said that the people of Kao-fu 'resemble those of T'ien-chu in their manners'. The remark in the *Wei-lüo* (p. 551) that 'the Yüeh-chih and the T'ien-chu have attacked and subjugated' the Tung-li people, with the addition that 'now the Yüeh-chih have enslaved them and laid taxes on them', is intelligible on the supposition that the T'ien-chu people were under Yüeh-chih rule; but here also there may be some confusion, since in the *Later Han Annals* (p. 193) the statement is that 'at that period (which CHAVANNES understands to mean 'in Pan Yung, the author's time, c. 125 A.D.') they (sc. the Shen-tu people) all de-

20. See DE GROOT, *Chinesische Urkunden zur Geschichte Asiens*, II, pp. 19, 20, 27, 29, 43.

21. DE GROOT, op. cit., II, p. 70. The *T'ien* part was derived from the Ssü-uan natives (see *ibid.*, II, p. 22), who gave likewise the name *Yüeh*, as one of the Indian kingdoms, where people rode upon elephants and to which they themselves had travelled. On the two forms see Pettish in *BEF 'E-O* V (1905) and 452.

22. Derived from Chang Ch'ien: see DE GROOT, op. cit., II, p. 20.

23. See *infra*, pp. 21, 24-6.

24. This again is from Chang Ch'ien's statement concerning India, which also mentions the riding on elephants: see DE GROOT, II, p. 20.

25. Perhaps for 'Ta-hia', as Chang Ch'ien had stated (DE GROOT, *loc. cit.*).

pended upon the Yüeh-chih: the Yüeh-chih had killed the king and installed a chief to govern that population'. The exaggerated estimate of the average stature of the people at 8 feet is perhaps an inference from the traditional stature, viz. 16 feet, of Buddha,²⁶ who was supposed to have had double the height of the people of his time; cf. EDKINS, *Chinese Buddhism*, p. 256, and CHAVANNES, p. 194 and n. 2, and BEF 'E-O, III, p. 392' n. 5).

On the whole it appears, first, that Tung-li was between T'ien-chu and P'an-yüeh, and secondly, that it was therefore included in 'India' (Shen-tu) in some wide sense; but that sense cannot be indefinitely expanded, since it is said (p. 193) that 'all the peoples of the different states included in the kingdom of 'India' call themselves Shen-tu'. Taken literally, indeed, the statement is erroneous: the Indians did not speak of their country or themselves as *Sindhu* or *Sindhuka*, and it was from the Iranians that the Greeks learned to speak of 'India' and 'Indians'—in Central Asia also *Induka* seems to have been the usual term, since a Turk remarked to Hsüan-tsang (BEAL, *Life*, p. 44) 'You have no need to go to India' (*Yin-t'e-chieh* = *Sindhuka*) 'realm', = (*Sindhuka-dēsa*).²⁷ Hsüan-tsang's own use of the name *In-tu*, despite the fact that 'the people of In-tu call their country by different names according to the district', was, as he himself states (BEAL, *Records*, I, p. 69), merely in order to have for his own purpose a well-sounding general term. In substance, nevertheless, the statement holds good: we have only to substitute *Bhārata* and *Bhārata-varṣa* (or *Ārya* and *Āryāvarta*) as the names whereby the Indians recognized the unity of their people and country.

P'an-ch'i being in 'India', we might be inclined to take advantage of CHAVANNES' suggestion (*T'oung-pao*, 1905, p. 552, n. 3) that it 'should be sought in Assam or in Burma' and boldly identify the region with the trans-Gangetic India or Ptolemy (VII, 2, 1) and its name, in fact, with *Vaṅga*, Bengal. Here, however, we are confronted with a question of reading not only, as seems very frequently to occur, in regard to the Chinese form of the name, but also in regard to CHAVANNES' note itself; for, as reproduced in *To'ung-pao*, 1907, p. 193, n. 1, but without comment on the change, the note has 'Annam' in place of 'Assam'. Annam, however, is so impossibly remote from India and so incredible as terminus of a route from China *via* Chinese Turkestan, that we may hope that the name is only a misprint: and a location of P'an-ch'i in trans-Gangetic 'India' is in harmony with the statement of the *Later Han Annals* that the country had been visited by a man of Ssü-ch'uan, who could very well have reached Assam and parts of 'Banga'.²⁸ In regard to the divergence between the Chinese transcriptions in the *Later Han Annals* (*P'an-ch'i*) and the *Wei-lüo* (*P'an-yüeh*) respectively, it would not be proper for a non-Sinologist to speculate, more especially as Professor PELLIOR has decided (BEFEO, VI, pp. 371-3, n. 2) to favour the second of the two, but, since it is known (see CHAVANNES *Toung-pao*, 1906, pp. 211-5, 1907, p. 149) that the matter of the *Later Han Annals* had been treated in a number of prior works, reaching back to c. 75 A.D., and therefore had been well-digested, its readings, unless due to mere clerical error, are essentially prior to those of the *Wei-lü*.²⁹ If, however, the form *P'an yüeh* is right, it may point in the direction of Assam, since *Yüeh* (with the same

26. Noted already in the *Later Han Annals* (CHAVANNAS, *loc. cit.*).

27. The *Hinduga-desa* of the Kālakācārya story (*Ind. Ant.*, ZDMG, XXXIV) noticed also by OLDENBERG (*Ind. Ant.*, X, p. 222) represents obviously the same expression: hence it is difficult to endorse Professor KONOW's proposal (Berlin Academy *Sitzungsberichte*, 1916, pp. 812-4, *Journal of Indian History*, XII, p. 18), to limit its denotation to Kāthiāwār and Mālava. In Sakakhotani also the expression denotes 'India': See Prof. BAILEY in BSOS. IV, p. 542.

28. Trade between the Tibeto-Burman borderers of Ssü-ch'uan and 'India' (sc. the Sadia district on the Brahmaputra, adjoining Assam) is attested in Chang Ch'ien's time (DE GROOT *op. cit.* II, p. 22) and also in T'ang times (BUSHELL, *JRAS*, 1880, p. 531 (42)).

29. It may be noted that neither the *Later Han Annals* nor the *Wir-tuo* shows acquaintance with the new information concerning Gangetic India brought to the Chinese court, about the middle of the III century A.D. by its envoy K'ang T'ai, returning from Fu-nah; a matter first brought to light by LÉN in his paper, *Deux Peuples Mééonnus*, contributed to *Mélanges Harles* (1896)—see the reprint in *Mémoires Sylvain Lévi* (1937), pp. 235-6, cf. PELLIOR in *T'oung-pao*, 1923, pp. 113-24.

Chinese character) was the name of the 'Indian' kingdoms visited in Chang Ch'ien's time by natives of Ssü-chu'uan (see *Supra* pp. 17 and 18, n. 2) : alternatively the reading may have been suggested by a reminiscence of that information. The double form (*P'an-yüeh*) in the *Wei-lüo* does not seem to be interpretable from the Indian side, and Professor PELLIOU (*loc. cit.*) traces *Han* also to an original *Ban* or *Bhan*.

Returning to Tung-li, we may note some considerations in favour of an identification with the central region of northern India, *madhya-dēśa*, the 'mid India' of Chinese writers. It was a great country, extending over 'several thousand *li*' from north to south and from east to west ; it had dozens of great cities, each with a king ; nevertheless it was an unity having a capital city. This cannot fail to recall to mind the fact that from the time of the Nandas and Mauryas the great central part of Hindustan had continued to constitute one imperial state, which in the period of Āśvaghōṣa and Kanīśka had two capital cities, namely Śāketa/Ayodhyā and Pāṭaliputra.³⁰ As regards Śāketa, LÉVI has noted (pp. 90-1) that sometimes the Chinese transcriptions of its name, *Sha-chi*, resemble the Chinese form, *Sha ch'i*, of the name of the capital of Tung-li ; but, since one of LÉVI's *Sha-chi* forms should in fact be *Sha-chi's* (KARLGREN, no. 879), there is rather identity than similarity in the two cases ; and, if it is urged that the Chinese *ch'* should represent an Indian *g* rather than a *k*, that is no difficulty, since the Indian name would naturally have been heard in the Prākṛit form *Sha(sa)geda*, which is the one reproduced in Ptolemy's $\Sigma \alpha \gamma \gamma \delta \alpha$. LÉVI did not work out his suggestion (pp. 91-2) that an error of direction, such as is found in Ptolemy's *Geography* (of India), has transported Śāketa from Tirhut to the south-east, so as to make it the capital of Tung-li ; and the suggestion is highly improbable, since the two Chinese texts mention, and probably had heard, nothing about *Sha-ch'i*, except that it was the capital of Tung-li. Hence the mention of *Sha-ch'i*, which cannot be identified as name of any city of southern India, stands out as a strong reason for finding the country Tung-li in the Ganges valley. The estimate of the stature of the people as 8 feet must, if the explanation given *supra* is correct, refer to the people of Buddha's country, which again is in the north. Also the mention of the camels, which, common in Rajputana, is even in northern India rarely seen east of Allahabad and in southern India is practically unknown, is decidedly adverse to an identification of Tung-li with the Dravidian country. More generally, too, it should be held in mind that 'Dravidian' must here be taken in the historical Indian signification, and not with any modern ethnographical connotation : it denotes the Tamils and the Tamil country, which neither in extent nor in number of 'cities of the first rank' corresponds to the description of Tung-li.

But how, it will be asked, can a Tung-li, which is at a distance of 3000 *li* to the south-east of India (*T'ien-chu*), be the country of the Ganges valley ? It is indeed evident that the text of the *Later Han Annals* is aware of a great India, *Shen-tu* or *T'ien-chu*, extending from Kabul in the west to P'an-ch'i in the far 'south-east'. But the *Shen-tu* or *T'ien-chu* first made known to Chan Ch'ien in c. 128 B.C. and conquered, as the *Annals* relate, by the Yüeh-chih king Yen-kao-Chin³¹ in the 1st century A.D., was a much smaller area 'on both banks of a great river', sc. the Indus, whence the name of the country, *Shen-tu*=*Sindhukā* : it was roughly equivalent to Gandhāra.³² Regarded from the point of view of Gandhāra,

30. As early as 1912 (*JRAS*, 1912, pp. 677-8) Mr. KENNEDY had cited the references in the Chinese *Annals* to P'an-ch'i and Tung-li and had identified the latter with this state of Magadha.

31. In *BÉFÉ-O*, XXVI (1929) pp. 201 sqq. Prof. PELLIOU argues in favour of *Yen-kao-mi* as the Chinese form of the name.

32. The notion that Gandhāra, even as far east as Taxilā, was included in the Ki-pin conquered by Kujula Kadphises (see KONOW in Berlin Academy *Sitzungsberichte*, 1916, pp. 811-2, *Ostasiatische Zeitschrift*, VIII, p. 231, *Acta Orientalia*, III, p. 67, n. , *Kharshtī Inscriptions*, pp. xxiii-iv, LXIV-VI, *Journal of Indian History*, XII, pp. 9, 15, 31) is based upon Prof. FRANKE's view (Berlin Academy *Abhandlungen*, 1904, p. 59) that Ki-pin included N. W. Kashmir, the Indus country as far south at least as the junction with the Kabul river and the land between the lower Kabul and the Swat rivers. This view is affected by an error in regard to the country mentioned by the Chinese as *Wu-i-shan-li*, which Professor FRANKE understood as Arachosia, *Wu-i-shan-li* is the Herat country=*Alexandria*,

the *Madhya-deśa* of Hindustan was, in fact, situated to the south-east and clearly not less so than a P'an-ch'i in 'Assam or Burma', which are assigned to the same direction. The account of Tung-li given in the *Annals* is, as we have seen, a patchwork of information from various sources and includes one particular, namely the extraordinary stature of the men and women, which betrays a lack of any direct knowledge of the country. Hence it is not too venturesome to suggest that the first Chinese information concerning Tung-li was to the effect that the country was situated to the south-east of 'India', Shen-tu, in the sense of Gandhāra, and that this statement was retained despite the later knowledge of a wider 'India', whereof Tung-li was a part: at any rate the case of P'an-ch'i, described as several thousand *li* to the south-east of 'India' and nevertheless included in India, is precisely similar. That any part of southern India had in Han times become known to the Chinese is not apparent.

Accordingly any validity in LÉVI's identification of Tung-li with the Dravidian country must be sought simply in his explanation of the name. The ingenuity of the explanation should not suffice to hide its difficulties. The name *Tung-li*, furnished by the *Later Han Annals* and therefore, for the reasons mentioned *supra*, essentially the earliest form, is replaced in the *Wei-lüo* by three alternatives, a fact pointing to later information, the alternatives being *Chü-li*, *Li-wei-t'ê* and *Pei-lt-wang*. Dismissing *Chü-li* as a copyist error for *Tung-li* (the Chinese characters for *Chü* and *Tung* being similar),³³ LÉVI proceeds to interpret *Tung-li* as representing *Dra*, a curtailed form of *Draviḍa*: *Li-wei-t'ê* he then understands as equivalent to the complete form *Draviḍa* = *Tung-li-wei-t'ê*, or perhaps to some Indian variant which lacks the initial *d*, cf. the *Limurike* of the *Periplus*, etc. The curtailment in the case of *Tung-li* may perhaps be paralleled among the 'archaic' transcriptions in old Chinese texts: as regards the dissyllabic representation of *Dra*, which in the case of *Draviḍa* is abundantly exemplified by LÉVI, and may be paralleled in numerous other cases cited by Stanislas JULIEN in his *Méthode pour déchiffrer et transcrire les noms Sanscrits . . . dans les livres Chinois*, what we miss is examples belonging to Han times—in the *Wei-lüo* the *śra* of *śramaṇa* is represented by a monosyllable (*sang* (-men), CHAVANNES, p. 550). Even later *Tung-li*, with its *u* vowel, seems strange: the known transcriptions of *tra* and *dra* are such as *t'o-lo* and *t'an-lo* (as, for instance, in the case of this word *Draviḍa*), and there is not, as in the case of *Tung-lung* = *dru(ma)*, an excuse for the *u*, as due to the vowel following the *r*. In *tung-li* the *tung* means 'east'; and, since the *li*, ancient *lyie* < *lyia* (KARLGREN, no. 533), meaning 'oriole', 'leave', 'quit', 'separated', 'pass through,' etc., is frequently used in rendering Sanskrit expressions denoting 'separation,' 'lack,' etc., especially compounds with *vī-* (including *vibhāga*, 'division'), it seems possible that *Tung-li* is not a transaction, but a translation, meaning 'Eastern division,' in Sanskrit *prācya* (or *pūrva*)-*vibhāga* or *prāg-deśa*, an expression which by reason of its intelligibility would be specially likely to be rendered by a translation.³⁴ Now *prāg* (or *pūrva*)-*deśa* is a regular term for the eastern half of Hindustan, and its popular use, so as to cover the whole country from Magadha in the east to the borders of the Panjāb, appears from the fact that Alexander's Indian campaign, if continued further east, would have brought him into collision with the Prasāoi, the Prācya people, *sc.* the Magadha empire. Moreover, we know upon the authority of Megasthenes (see SCHWANBECK's edition of the fragments, pp. 111-2,

which is the name exactly represents (DE GROOT, *Die Westlande Chinas*, pp. 91-3): having Herat on its west and south-west and Udyāna (Swat) on its east (*ibid.*, p. 86), Ki-pin can hardly be made to include Gandhāra (south of Swat) or any district east of the Indus. It is distinct from T'ien-chu (CHAVANNES, *T'oung-pao*, 1907, pp. 191, 192). The view in Han times *Ki-pin* denoted Kashmir is reaffirmed by PELLIOU in *BÉFE-O*, V (1905), p. 454, while Chavannes postpones the denotation of Kapesā even to T'ang times: and clearly in some Buddhist texts (e.g. I-tsing's translation of the Mūla-Sarvātivādin *Vinaya*, see Prof. PRYLUSKI's translations in *Journal Asiatique*, XI. iv (1914), e.g. pp. 52, 74, story of Madhyāntika) *Ki-pin* is Kashmir. But in the *Former Han Annals*, as is shown by DE GROOT, *op. cit.*, pp. 86-7, Kapisā must be meant.

33. On a *Chü-li* situated on the eastern side of the Bay of Bengal, see PELLIOU in *B.E.F. E-O*, III, p. 266, nn. 2 & 3, IV, p. 386 & *reft*.

34. In later times the Chinese uses the expression '*Tung T'ien-chu*', 'Eastern India.'

163) that the people of that kingdom were commonly designated *Prasioi* or *Praisioi*. Concerning *Li-wei-t'ê* ('ancient' Chinese *liei*, KARLGREN, no. 538, 'rite', 'decorum', 'ceremony', etc. + *wi*, no. 12265A, 'string', 'cord', 'rule', 'principle', etc., + *d'ek* 'bull', 'mate', 'special', 'unique', etc.) it is difficult to suggest anything. In *P'ei-li-wang* the last syllable seems, as in *Han-yüeh-wang* and perhaps some other cases, to give the meaning 'kingdom', Sanskrit *rājya*, *rāṣṭra* (from *wang*, 'king') : hence perhaps LÉVI deals only with *P'ei-li*, which he compares with (*Dra*)*viḍa* or with the *viḷa-* (read *viḷi*)*vāya-kura* of Andhra coins, the *Baleokouros* of Ptolemy. The latter alternative seems ineffective, since *viḷivāya* certainly had nothing to do with Dravidian country. *P'ei* ('ancient' *p'uāi* or *p'uāid*, KARLGREN, no. 747, 'heavy rain', 'abundant', 'marsh', etc.) + *li* 'ancient', *liei*, with variant *d'iei*, KARLGREN, no. 961, 'belonging to', 'servant', 'employee', etc.) seems to be transcription : it should apparently have an *a* rather than an *i* in the first syllable,³⁵ and conceivably it might be made to support the Dravidian hypothesis, if it could represent an Indian *Pāṇḍyārāṣṭra*³⁶.

It does not appear that the names furnish any secure ground for identification of the country Tung-li. The descriptive particulars seem, as noted *supra*, positively to preclude the Dravidian country. History and archaeology, again, are entirely adverse to any notion of Kuṣāṇa dominion in the Dravidian area or in any other region of southern India : not only are there no tangible evidences, such as coins, architecture or inscriptions, of their presence there, but even the names *Kuṣāṇa* and *Tukhāra* seem to have left no record in the region. Nothing in the history of the Andhras, Pallavas or other dynasties during the 2nd century A.D. points to their direct intervention.

If we could establish the identity of *Tung-li* with the *madhya-deśa* of Hindustan, we should find ourselves in contact with known history ; for not only do the Buddhist accounts of Kaniṣka record his invasion of that country, with its capitals Śāketa and Pāṭaliputra, and his relations with Aśvaghōṣa, a native of the former of the two,³⁷ but inscriptions of his 3rd year at Sarnath and of his—year at Saheth-maheth (Śrāvastī)³⁸ prove that in the early period of his reign he was master of the country and had satraps there installed. Fortunately, any remaining doubt as to the situation of Tung-li would fail to impair the chronological significance of the statement in the *Later Han Annals* : for no one would conceive a possibility of a Kuṣāṇa conquest of Tung-li, wherever it should be found, prior to Kaniṣka's acquisition of the *madhya-deśa* ; and, in fact, the text definitely affirms (p. 193) a Kuṣāṇa conquest of the whole of northern India as far east as P'an-ch'i, its extreme limit. There remains only the question of date. It is known that the matter in the *Later Han Annals* relating to the 'Western Countries' was based upon a report presented by the celebrated Chinese General, Pan Yung, to the Imperial Court in 125 A.D. ; and the actual compiler affirms that he had followed the phraseology of the report down to its details (CHAVANNES, pp. 149-150, and p. 218, n. 1). Consequently, when it is stated concerning the people of T'ien-chu or Shen-tu that—

'At that period they were all dependent upon the Yüeh-chih : the Yüeh-chih had killed the king and installed a chief to govern that population.'

(CHAVANNES, p. 193, 'A cette époque ils dépendaient tous des Yue-tche : les Yue-tche avaient tué le roi et avaient installé un chef pour gouverner cette population.')

CHAVANNES (p. 193, n. 2) understands 'at that period' as probably meaning 'at the date of Pan Yung's report, c. 125 A.D.' In fact, there is no other period to which it can

35. Cf. *mei* (*muār*, No. 1301) for *mā* in *samādhi*, *pel Unār*, No. 702) for *pā* in *kārpāsa*, *wei* (*yi unār*, No. 1303) for *vā* in *nivāsna* (Stanislas JULLIEN, *op. cit.*).

36. It may be worth while to remark that the three alternative names given in the *Wei-lüo* may indicate either a plurality of sources of information or a single source carefully to record variation of name. In the latter case the informant would probably have been a Pandit or other educated person, and the variant names should be identifiable in Sanskrit or Prākṛit ; but particular suggestions seem hazardous.

37. See LÉVI, 'Notes sur les Indo-scythes,' *Journal Asiatique*, IX, viii (1896), pp. 475-6. F. W. THOMAS, *Matriccta and the Mahārajakanikalekha* (*Indian Antiquary*, 1963, p. 350).

38. See LÜDERS, *List of Brahmi Inscriptions*, nos. 925, 927, 918-9.

refer : not being the writer's own time (c. 445 A.D.), it must be the date of his subject matter ; and indeed it evidently refers to the initial conquest by Wima Kadphises, since the statement about killing the king and installing a viceroy repeats what has been said one page before (p. 192) concerning that conquest. It might, however, on this very ground be suggested that the writer has erroneously extended to the whole of 'India' what Pan Yung had recorded merely concerning the part of it conquered by Wima Kadphises. This would imply that 'India' in the larger sense was unknown to Pan Yung, since he could not have failed to make the distinction in connection with that conquest, and hence that the description of India in the *Later Han Annals*, and *à fortiori* that of Tung-li, were not based upon Pan Yung's report, a supposition directly conflicting with the compiler's statement. It is impossible that the larger India should not have been known to the Chinese court in Pan Yung's time. For not to mention the mission sent by the Emperor Ming (55-75 A.D.) to inquire concerning Buddhism (p. 194), the court received on 'several occasions during the period 89-105 A.D. (pp. 193-4) Indian embassies bringing 'tribute and offerings.' As for the conquest by Wima Kadphises, that cannot have failed to be reported even in Pan Ch'ao's time by the emissary, Kan Ying, whom he despatched in 97 A.D. to the west and the completeness of whose observations on the geography, etc., of all the countries beyond the Yü-men and Yang passes (the western frontier of Kan-su) and as far as Parthia is particularized with emphasis in the *Annals* (pp. 159, 217). But probably it was known, and in the quoted terms, even considerably earlier, since even in 90 A.D. Pan Ch'ao repelled a Yüeh-chin invasion of Chinese Turkestan. Inasmuch as after 105 A.D. communication with India were, the *Annals* say (p. 160), interrupted by revolt of the Western countries, the Indian facts related in Pan Yung's report are likely to have antedated that year and not merely the year 125 A.D. In 159 and 161 A.D., as we have seen, the communications were renewed by Indian mission arriving *via* Jih-nan, i.e. by the sea-route reaching Cochin China (p. 194).

It is indeed true, as CHAVANNES has noted (pp. 150, 168 n. 1), that concerning 'the states of Chinese Turkestan the *Later Han Annals* does mention a number of events posterior to the date of Pan Yung's report (125 A.D.): CHAVANNES ascribes this to the relative proximity of the states to China, which continued to have some relations with them. Another reason, which covers several of the instances, may have been the arrival of missions at the Imperial court, where the historian would have found them recorded in the minutes of proceedings. To this group would belong the Indian missions of 159 and 161 A.D., which possibly had, like those of 87-105 A.D. and like many other foreign missions in later times, a political object and were, in fact, appeals for help. Hence it might be conjectured that the information concerning the Kuṣāṇa conquest of India, in the larger sense, had been derived from these missions, and not from those of 87-105 A.D. or Pan Yung's report. Thus the *terminus ad quem* for Kaniṣka's conquest of the *madhya-deśa* of Hindustan would not necessarily be earlier than c. 159 A.D.

IV. Western and Southern India and the Kuṣāṇas.

The upshot of this discussion is that the country Tung-li has not been shown to have been, and probably was not, situated in southern India and that its conquest by the Kuṣāṇas cannot be dated with the unconditional certainty which is desirable. But there can be no doubt that in drawing attention to it in connection with Kaniṣka LÉVI has rendered an important service, since the conquest cannot have preceded Kaniṣka's invasion of central and eastern Hindustan. As regards Western India and the Deccan the outstanding fact is that for them, so far as overt references in their records, even in the Jain literature, are concerned, the Kuṣāṇas and their Tukhāra people might never have existed. In connection with the history of the Nahapāna of years 42-6, though his dominions extended as far north as

39. It would be quite erroneous to follow Mr. KENNEDY (*JRAS*, 1912, pp. 681, 683) and Professor KONOW (*Acta Orientalia*, II, p. 133, *Journal of Indian History*, XII, p. 33), in assuming that Pan Yung had information concerning India for the period 105-125 A.D.

Western Rajputana,⁴⁰ this creates no difficulty; for he ruled at a time when, as we have seen, there were as yet no Kuṣaṇas in India. But the Saka king-satrap, Caṣṭana, Jayadāman, Rudradāman and their successors, and the Andhra kings from Gautamīputra Sātakarṇi onwards unquestionably had Kuṣaṇa contemporaries in northern India, and the likelihood of relations with them must be considered. In regard to Sānchī it is a matter of fact; for there in an inscription of the year 28 of the Kaniṣka era⁴¹ a Kuṣaṇa ruler, namely Kaniṣka's successor, Vāsaṣka, is acknowledged in the dating. If the year 28 is equated to c. 106 A.D., a question arises as to the conquests of Gautamīputra Sātakarṇi, which must then have been made partly against Kuṣaṇa rulers or suzerains: if we prefer a date c. 158 or later, there is a problem in regard to Rudradāman or his successors.

The latest conceivable equivalent for the Sānchī inscription year 28 would be c. 178 A.D.; for this would imply a commencement of Kaniṣka's reign in c. 150 A.D., and his conquest of the *madhya-deśa* of Hindustan in c. 151-2 A.D.; and the Chinese knowledge of the conquest of Tung-li, which was either identical with, or later than, that conquest, cannot be placed later than 159 A.D. The activities of Gautamīputra Sātakarṇi and Rudradāman would then have been long prior to any Kuṣaṇa suzerainty in Sānchī. But in the year 136 = c. 79 A.D., of the Taxilā Silver Scroll inscription the Kuṣaṇa were dominant in Taxilā; and an interval of more than 70 years, apparently void of events and of record, would separate their establishment there from the commencement of Kaniṣka's reign and of his aggression against the *madhya-deśa*. If, again, we equate the year 28 to c. 158 A.D., so that Kaniṣka's era commences in c. 130 A.D., the Sui-Vihār inscription of year 11 assures us that in c. 130 + 10, = c. 140, A.D., the Kuṣaṇa authority covered the region of Multan. Gautamīputra Sātakarṇi's reign had ended probably before 130 A.D.; but the year 140 A.D. falls in about the middle of Rudradāman's career (c. 130—c. 150 A.D.); and, since the latter's territories included Sindh and a portion of Mārwar in Western Rajputana (RAPSON, p. cxix), his adjacency to the Kuṣaṇas is such that there must have been interrelations; as regards Eastern Malwa, which 17 (or less) years later was to come under the suzerainty (at least) of the Kuṣaṇa Vāsaṣka, such interrelation is inevitably to be admitted. It would then be highly probable that Rudradāman's campaigns against the Andhras had been undertaken with Kuṣaṇa countenance or support; and his well-known boast of having acquired for himself the status of *mahā-kṣatrapa*,⁴² a statement which has always provoked the question, 'Acquired from whom', would be convincingly explained by his having received that recognition as a feudatory of the Kuṣaṇas, who are known to have had feudatories bearing that title.

Both these datings of Kaniṣka, c. 150 and c. 130 A.D., ignore the passage in the *Periplus* brought to light by Sylvain LÉVI. In itself such failure of adjustment is not, so long as Sandanes is an entirely problematical person, a serious objection, since the *Periplus* date is c. 80 A.D., some 70 or 50 years earlier, and might be quite irrelevant. But they cannot be excused for ignoring the 'Saka' era of Western India, which has an initial year 78 A.D., noticeably approximate to the *Periplus* date. For Rudradāman by his date 52 (Andhra) and 72 (Girnār) is linked to the 'Saka' era, which was maintained by his successors and which, since his first known year is 52, was in all probability used by his father, Jayadāman, and his grandfather, Caṣṭana. The figure 52 would allow the supposition that Caṣṭana, who *might* indeed have been a person of more significance than is known, was the actual initiator of the era. But we have seen (pp. 9-10) that at the time of the *Periplus* passage Ujjain had ceased to be the 'royal seat' of Caṣṭana: it is therefore more likely that the foundation of the era was connected with Caṣṭana, if connected at all, by a loss of status than by an aggrandizement: and, in fact, it has been recognized that in the life-time of Rudradāman's father or grandfather there had been a family reverse,⁴³ which he had had to retrieve. Nahapāna had, we have seen, belonged to an earlier period: and no other founder of the 'Saka' era,⁴⁴ which, unless identical with that of Kaniṣka, was never used at all in northern India, can be named, except 'Sandanes.' Sandanes, who in the *Periplus* is a commanding

40. RAPSON, *op. cit.* p. cxi.

41. See LÜDERS, *List*, no. 161 & p. 175.

42. Cf. RAPSON, *op. cit.*, p. cxvii.

43. Cf. RAPSON, *op. cit.*, p. cxvii.

44. On a supposition that Wima Kadphises was the founder see *infra*, pp. 49-51.

figure, has the advantage of indubitable approximate contemporaneity with the initiation of the era : his interposition can be supposed to have caused in Ujjain the displacement of Caṣṣāna, who may have retired to be 'king-satrap' in Cutch, where his grandson Rudradāman first comes to light : and, if Sandanes was Kaniṣka, it would be highly consistent to find Kaniṣka's successor, Vāsaṣka, as suzerain or ruler in Sānchī in year 28 of Sandanes' era. That Rudradāman, and possibly his two predecessors, should have used the era will have resulted from their position in relation to Kaniṣka.

Two questions here arise, one of more limited scope, the other more general. If Sānchī was in year 28, = 106 A.D., under Kuṣaṇa control and if the Kṣaharātas of Barygaza, etc., had remained under the same influence, how was it possible for Gautamīputra Sātakarṇi, some 18 or so years later (if in his 18th year), to attack and conquer both? The event would have taken place in year c. 124 A.D., = year c. 46 of the Kaniṣka era, and accordingly during the reign of Huviṣka. Unfortunately, we have no knowledge of the actions of Huviṣka, and therefore cannot seriously confront the question. But it seems clear that the Indian headquarters of Kaniṣka and his successors were at Mathurā ; and the Satraps in districts relatively so remote as Sānchī and the Konkan may have been left normally to defend themselves. It may be noted that, if for Vāsaṣka's year 28 we adopt a later equivalent, c. 158 A.D., which would probably be in the time of Rudradāman's successor, we shall similarly be at a loss to explain how Sānchī returned under Saka control, which clearly was the situation at least c. 200 A.D. and so remained. It may be that from the time of Rudradāman's reconquest, it was never continuously otherwise, any interference by the suzerain in the domain of the king-satrap being merely occasional. Hence Gautamīputra may not have had to face any collision with the Kuṣaṇas themselves.

The wider question is how to explain the total void of reference to the Kuṣaṇas in the records relating to Gautamīputra and in those relating to Rudradāman, who both indubitably had Kuṣaṇa contemporaries. Gautamīputra, 'who crushed the pride and conceit of the Kṣatriyas ; who destroyed the Sakas, Yavanas, and Pahlavas who rooted out the Khakharāta family ; who restored the glory of the Sātavāhana race', (RAPSON, pp. x-xvi-vii), had apparently never heard of Kuṣaṇas or Tukhāras. We may suppose that Gautamīputra did not distinguish racially between the Kuṣaṇas and the Sakas, with whom alone he had been in conflict. In the case of Rudradāman, himself a Saka or Pahlava, whose dominions extended near to the confines of the northern power, a different explanation is requisite. We may conceive that it was not to his interest or taste, as a highly Hinduized ruler, to refer to them more explicitly than by the mention of his promotion to the rank of *mahākṣatrapa*. His successors, whose dominions served as a permanent cushion between the Kuṣaṇas and the Deccan powers, may have experienced little or no interference from the former, whose interests were mainly concerned with the Punjāb and the Hindukush countries and who even in the *madhya-deśa* seem from the Chinese account to have been content with exaction of tribute. A more general cause will have been the persistent indifference of the people of Western and Southern India in regard to occurrences in the north. What should we learn from western or southern sources concerning the Huna successors of the Kuṣaṇas, or even concerning their Hindu adversaries, the Guptas? And what do we learn concerning the emperor Harṣavardhana beyond a single reference in inscriptions of the Calukya Pulikeśin, provoked by an actual aggression on the part of Harṣa?

Sylvain LÉVI's important article has drawn attention to a part of the Kaniṣka question which previously had not been prominent in the discussion, though in connection with the 'Saka' era it had loomed largely in the background, namely the question of possible Kuṣaṇa domination in Western (and Southern) India. He has established definitely two previously unobserved facts, (1) that approximately contemporary with the commencement of the 'Saka' era there was in the Bharukaccha region a dominant personality mentioned in the *Periplus* by the name *Sandanes*, and (2) that the name is identifiable with a title, in Sanskrit *Candana*, certainly borne by Kaniṣka. Even if it should turn out that Sandanes was not Kaniṣka, the title may eventually bring Kaniṣka to light in non-Buddhist Sanskrit literature, where, except for the *Rāja-taraṅgiṇī*, he has hitherto eluded research. If the equation

Sandanes = *Kaniška* were in itself certain, it would end all controversy concerning *Kaniška*'s date and era. But otherwise it does not appear that Western and Southern Indian history furnish the decisive evidence required in a matter so much controverted: we can only say that the 'Saka' era, if not founded by *Kaniška*, has no probable founder.⁴⁵ An extensive Kuṣāṇa domination in Southern India does not seem to have been proved by LÉVI's evidence concerning Tung-li or to be probable.

V. Kuṣāṇas and Chinese Turkestan.

So far as has hitherto appeared, the Iranian evidence concerning the Kuṣāṇa empire does not resolve the chronological difficulty: it proves that in Baktria the title *Kūshān-shāh* (or *Shāhin-shāh*) was from about 225 A.D. taken over by the Sasanians, from whom it passed later to the Hephthalite Huns: in the Panjāb⁴⁶ in Kabul and the other countries south of the Hindu-Kush, and probably also in the Pamirs, the Kuṣāṇa dynasty continued to rule. A passage in the Chinese *Wei-lüo*, which, ignoring the loss of Baktria, states that 'the kingdom of Ki-piñ, the kingdom of Ta-hia (Baktria), the kingdom of Kao-fu (Kabul), the kingdom of T'ien-ehu, all depend upon the Yüeh-chih', is regarded by CHAVANNES (p. 530 n. 1) as proving that in the middle of the 3rd century A.D. the Kuṣāṇa power was at its apogee. During the period 245-250 A.D. a report from Indo-China to the Chinese court mentions a saying which names China, the Greco-Roman world and the Yüeh-chih as a triad, obviously of Great Powers.⁴⁷ Perhaps India proper was left out of account; for a Buddhist text perhaps translated in 266 or 281 A.D. mentions China, the Greco-Roman world, the Yüeh-chih (in the north-west), and India as the Four kingdoms ruled by 'sons of heaven';⁴⁸ so that 'India' proper, *sc.* the middle and east of Hindustan, may perhaps under Saka-Muruṇḍa rulers,⁴⁹ have resumed its independence.

There remains, if we disregard a matter to be noticed in conclusion (*infra*), only Central Asia and the Chinese. It is useless to traverse again the old ground, the quotations from the Chinese *Annals* and the *Shih-chi* concerning the beginnings of the Yüeh-chih, the foundation of the Kuṣāṇa kingdom and the conquest of 'India.' But there is one event which, if certainly established and identified is decisive of the whole matter: and that is *Kaniška*'s attempted invasion of Chinese Turkestan. The attempt and failure is described in Buddhist texts, first brought to light and translated by LÉVI in his 'Notes sur les Indo-Scythes' (*Journal Asiatique*, IX, viii (1896), pp. 444-484, see p. 474); and that such an expedition was by early Buddhist tradition attributed to *Kaniška* no one would question..

This celebrated enterprise and failure of *Kaniška* we have every temptation to identify with an event recorded by the Chinese as having taken place in 90 A.D.⁵⁰ From about 73 A.D. the famous General Pan Ch'ao had been in Chinese Turkestan, engaged in restoring the Chinese influence there, which had been in abeyance since Wangman's time (*c.* 23 A.D.). In 85-7 A.D. the Chinese were supported by the Yüeh-chih and the people of K'ang-kin in attacking Ku-ši (the Turfan-Guchen region); and this emboldened the Yüeh-chih to send in 88 a mission demanding a Chinese princess in marriage. The mission was stopped by Pan Ch'ao, who had just reduced Yarkand to complete submission: in consequence of which affront the Yüeh-chih despatched across the Pamir, in 90 A.D., an army of 70,000 men under their general Sie. When making for Kuca, a part of the force was ambushed, and the main body, checked by the strategy of Pan Ch'ao, retired without fighting. If this event is not identical with what from the Indian side is recorded in regard to *Kaniška*, what Yüeh-chih king was concerned in it? Clearly it cannot have been Wima Kadphises:⁵¹ an event

45. See *supra*, p. 35 n. 2.

46. As is proved by coins.

47. See PELLLOT in *T'oung-pao*, 1923, pp. 121-2

48. See LÉVI in *Journal Asiatique*, IX, ix (1897), p. 23 n. 2, PELLLOT in *Toung-pao*, 1923, pp. 98-102, 122-3.

49. See LÉVI in *Journal Asiatique*, CCXXIV (1934), p. 11 n., CXXVIII (1936), p. 82.

50. See SPECHT in *Journal Asiatique*, IX, x (1897), pp. 184-7, and CHAVANNES in *T'oung-pao*, 1906, pp. 232-3.

51. As suggested by Professor KONOW, *Acta Orientalia*, II, p. 133, *J. Indian History*, XII, p. 33.

so nearly affecting China itself could not have been left unmentioned in the oft-quoted passage from the same History (the *Later Han Annals*) which gives an account of Wima Kadphises and his conquest of 'India'.⁵² Hence it would have to be attributed to some imagined Yüeh-chih ruler coming between Wima-Kadphises and Kaniṣka. Kaniṣka's own well-certified attempt, if it took place at any other period, has passed entirely unmentioned in the Chinese *Annals* : and for the period 130-170 A.D., marked by a number of dated events recorded by the Chinese in regard to Ku-ṣi, Karashahr, Kashgar and (Kh)yü-mi, the improbability of such a failure to mention an invasion by the Great Yüeh-chih becomes prohibitive. The year 90 A.D. must be included in the period of Kaniṣka's reign as the date of his 'Sicilian expedition' or his 'Moscow.'

As regards the 'Chinese hostages' whom Hsüan-tsang reports (BEAL, *Budāhist Records*, I, pp. 56-8, 173-4) as having been entertained by Kaniṣka, it will be obvious not only to every Sinologist, but to every reader of the chapter in the *Later Han Annals* (CHAVANNES' translation) that neither in the 1st nor in the 2nd century A.D. can they have been real Chinese : probably they were peoples from a state (e.g. Khotan or Kashgar) or states in Chinese Turkestan,⁵³ and they may have been, like the Kashgar would-be king Ch'en-p'an in 113-117 A.D. (see SPECHT in *Journal Asiatique*, IX, x (1897), pp. 187-8, and CHAVANNES in *T'oung-pao*, 1907, p. 205) rather exiles or refugees than hostages. They may have been brought back by the above mentioned Yüeh-chih expedition of 85-7 A.D.

VI. Kaniṣka Devaputra.

In conclusion we may note one particular on the Indian side which, if correctly understood, is in itself decisive of the Kaniṣka chronology. The appellation *devaputra*, we arc elsewhere endeavouring to show, is not known to have been applied to any Kuṣāṇa ruler before Kaniṣka's time : in the Taxilā Silver Scroll of year 136, = c. 79 A.D., the *Maharaja rajadhiraja Khusana* is also *devaputra*. The date belongs accordingly to the reign of Kaniṣka and probably to his first or second year, a conclusion in entire harmony with that which Sylvain LÉVI has drawn from the mention of Sandanes in the *Periplus* : the early period in the reign would account for the retention of two earlier features in the dating of the inscription, (1) the use of the era in prior use, (2) the omission of the king's personal name.

In this connection it seems advisable to add a word concerning the Khalatse Kharoṣṭhi inscription dated in year 184 or 187 and edited by Professor KONOW in *Kharoṣṭhī Inscriptions*, pp. 79-81. Somewhat previously (*Acta Orientalia*, V, pp. 31-2) Professor KONOW had announced and discussed his reading of the king's name as *Uvima Kaythisa*, which he thought to represent the Wima Kadphises of the coins ; and subsequently he has more than once⁵⁴ emphatically reaffirmed his view, without apparently eliciting either concurrence or dissent in print. Probably it has been felt that the unavoidably inadequate photograph of the inscription which we owe to the late Dr. A. H. FRANCKE, the discoverer,⁵⁵ precluded an adequate study of the text, of which the reading is at some points problematic. Having many years previously received through the kindness of Dr. FRANCKE a copy of the photograph, I myself had thought the inscription not yet utilizable for historical discussions. One reason for this was that the name of the Mahārāja, however read, might be that of a local ruler in Ladak, the country where Khalatse is situated. The fact, however, that a probably Indian era is used seems to justify Professor KONOW in seeking for a name known in Indian history ; and there is, moreover, the employment of the Indian Kharoṣṭhi script, which we do not know to have been introduced at an early period even into Kashmir. Also

52. That this conquest was prior to c. 79 A.D. is proved by the Taxila Silver Scroll inscription of year 136 = 79 A.D., in the reign of a Kuṣāṇa. It must have been known to Pan Ch'ao who in 78 A.D. was in communication with the Yüeh-chih (CHAVANNES, *T'oung-pao*, II, vii (1906), p. 224).

53. The expression (BEAL, I, p. 57) the territory 'west of the river (Hoang-ho)' has variant and some very wide meanings in Chinese : see FRANKE, *Geschichte des Chinesischen Reiches*, III, pp. 107, 237.

54. E.g. *J. Ind. Hist.*, xii, p. 36.

55. See his article in *ZDMG*, 61, 592 and Plate II, no. 3.

in the main the script, of a comparatively early period, is quite legible. I have, however, long thought that the reading should differ from that propounded by Professor KONOW : as to the first two *akṣaras* of the name, *u vi*, there can be no disagreement ; and the last two are certainly *śi sa*, unless a fault in the stone should justify Professor KONOW in reading *śa sa*. The intervening three *akṣaras*, read by Professor KONOW as *ma ka vthi*, constitute the problem, which can be properly studied only with the photograph at hand. The first two of them seem rather to collide in their lower portions, while the third, in itself difficult, seems to be joined by an unfamiliar arrangement of strokes at its foot to the following *śi (sa)*. Professor KONOW thinks that in the first only the upper, quasi-semi-circular, curve is the *akṣara* really designed, which accordingly would be *ma*, while the curve descending from it is due to a fault in the stone and the straight vertical which diverges from the curve near its junction with the *ma*, and which is linked by a straight line from the same point to the following *akṣara*, belongs to that following *akṣara*, which accordingly cannot be anything by *ka*. It is here that I am unable to concur : it seems to me that the *akṣara* in question is one whole ; and this is confirmed by FRANCKE's eye-copy, shown in his Plate ; and, that being the case, there can be no doubt that it is the *akṣara* given under nos. 35-37 in Professor RAPSON'S Table (*Kharoṣṭhī Inscriptions*, Plate XIV) and occurring in Mathurā Lion Capital Inscription I (*Epigr. Indica*, IX, p. 145 and Pl. I)—where correct *palishte* (,??) *na* to *palichina*, as proposed by Professor LÜDERS—and KONOW, (*Kharoṣṭhī Inscription*, p. 48 and Pl. VIII J), in the Mareshra Inscription of year 68 (KONOW, *op. cit.* p. 20 and Pl. I. 10), an *akṣara* leading back to the Aśoka form exhibited under 11 I in BÜHLER'S Table I and in all these cases read as *ch(a)*. The name therefore is not *Uvima*, but *Uvicha*.

If this reading is admitted, it may be said that the matter is settled. For *Uvicha* cannot be anything other than the *Huvaṣka*, *Hūviṣka*, *Hukṣa*, of the Mathurā (LÜDERS, *List*, nos. 35, 38, 41-3, 46, 51-2, 56) and Wardak inscriptions, and the *Huṣka* of the Kashmir chronicle, *Rāja-taranginī*. The circumstances in fact, agree. Ladak would not have been likely to be visited from India except *via* Kashmir, and Khalatse will have witnessed the passage of trading, missionary and official parties *en route* for Chinese Turkestan ;⁵⁶ Khotan in particular we know from its *Chronicle* to have had in early times active communications with Kashmir Buddhism. The date also accords : the years 184-7 of the old era used in Gandhāra and coincident approximately, it is generally agreed, with the Indian Vikrama Era of c. 57 B.C., would be c. 50 years later than the year 136 of the Taxila Silver Scroll inscription and, if that year were approximately the year 1 of the Kaniska era, then the year 50 would fall within the known regnal period, years 28-60, of Huviṣka. The maintenance of the old era in Kashmir, or Ladak, presents as Professor KONOW has previously argued,⁵⁷ no serious difficulty.

With the remainder of the name the problem recommences. Professor KONOW's reading of the first as a *ka* of which a part extends under and makes actual contact with a preceding *ma* we have already seen reason to reject. Taken by itself, the sign can be nothing but a *v*—since a vowel (*a*) is excluded by its straight horizontal top in comparison with the curved top of the preceding *u*. But here we should not ignore the fact that FRANCKE's eye-copy shows on the right of the *v*—shape a short horizontal line, which suggests that *part* of the whole line joining the *akṣara* to the preceding *ch* and constituting the ground for Professor KONOW's supposition of a *ka* really does appertain to the *v*-. If that were so, we should not be entitled to read the *akṣara* as *ve*, because universally the *e* vowel of *ve* is attached to the horizontal top of the *v*, not to the vertical ; and that in this inscription the same would have been the case is evident from the position of the vowel-mark of *i*, which follows the same rule, in the preceding *vī*. There is no apparent prolongation of FRANCKE's little line.

56. It is, of course, out of the question that an Indian Prākṛit should have been used by residents in Ladak, a country, no doubt, even then of Tibeto-Burman speech. Even at still remoter Tanktse, in the vicinity of the Pangkong lake, there are numerous rock drawings and writings, some even in Sogdian, the work of travellers and pilgrims. (See FRANCKE, Berlin Academy *Sitzungsberichte*, 1925, pp. 366-370).

57. *Acta Orientalia*, V, p. 33 and *Kharoṣṭhī Inscriptions*, p. 81.

so as to cross the stem of the *v* : wherefore a reading *sta* is likewise groundless. Accordingly there seems to be no case for anything but *va*.

In the next character, interpreted by Professor KONOW as *vthi* (or else *thvi*), the main, but not the sole, difficulty arises from the complex and totally unprecedented configuration which seems to join its foot to the foot of the following *si* (*sa*). To which of them does it belong? Or is it perhaps an independent scratching, not contemporary with the inscription? One thing seems certain : if joined to the first of the two, it does not yield a form in any respect similar to the *pi*, with addition of a cross at the foot of its main vertical, which is seen on the coins of Wima Kadphises and which BÜHLER's Table I, 27 exhibits as representing '*pti*' (?) and RAPSON reproduces as no. 220 in his Table (*Kharoṣṭhi Inscriptions*, Plate XIV), ascribing to it the place *lpi*. Even the part of the sign which we might be inclined to isolate as a *v*, as Professor KONOW also seems to have done, is subject to a doubt, since its stem is crossed both in FRANCKE's eye-copy and in the photograph by a line which renders the reading *st* no less possible : and, even if we totally ignore the subjoined lines, a doubt persists as to *va* or *vu*, *sta* or *stu*.

The third *akṣara*, if detached from the subjoined figure, presents no difficulty, being a clear *si* or, if we suppose the vowel line to be an accidental scratching, *sa*.

As regards the total reading of the four *akṣaras*, it seems that nothing plausible can at present be propounded and that the only hope is that light may come from a further inspection and more elaborate facsimiles (photographs, estampages, etc.) of the inscription *in situ*, when that may be effectable.

In the meanwhile it seems not superfluous to comment on the form of the name, *Kavthisa* or *Kathvisa*, elicited by Professor KONOW. In recommending it by a comparison with the Chinese *Kao-chen*, Ancient *Kâu-chien*, Archaic perhaps *Kap-t'ien*, Professor KONOW has ignored the suggestion of Professor PELLiot (*T'oung-pao*, XXVI (1929), pp. 201 sqq. and *J.As.*, CCXXIV (1934), pp. 38-9, n. 1.) that *Kao-chen* represents a miswriting of what we should not transcribe as *Kao-mi* and that the form of the name reported by the contemporary Chinese was something like *Ka βi*. But what matters, except for purposes of Chinese philology, the Chinese form, or forms, subject to the manifold dubieties of foreign names, when we have the names in well understood alphabetic script of equal antiquity? In the particular instance we are specially fortunate : in clear Greek script on coins authorized by the kings themselves we find the name consistently spelled *Kadphisēs* or *Kadphizēs*, except in perhaps its earliest occurrence, where it appears as *Kadaphēs*. The reconciliation here seems patent : the form *Kadaphēs* proves that the vowel following the *ph* was short and also that in some pronunciations there was a vocalic interval between the *d* and the *ph* ; and thus, if we omit the Greek conventional termination, *ēs*, we arrive at a form *Kadaph s-*, or rather *Kadaf s-*, elicited long ago by MARQUART (*Eränsahr*, p. 204, n. 4)' who with good reason detected in it an Iranian form. The loss of the short vowel of the second syllable results in the form *Kadf s-* (perhaps *KAδf's*),⁵⁸ which is the Greek *Kadphis-*. The forms represented in the Kharoṣṭhi script fall into line, *Kaphsa* or *Kapsa* coming either from *Kadf's* through the loss of the spirant before the *fs*, or from *Kadf s>Ka'afs-* through the characteristically Iranian disappearance of the intervocalic media (*d*) or spirant (*δ*) : the form *Kasa* will represent the last reduction of *Kafs-*. These numerous varieties of form correspond perhaps largely to dialectical or social differences, though in some cases the fuller forms may be due to wilful retention of archaic pronunciation.

In one point Professor KONOW does, in fact, appeal to the Greek, namely in excusing the *s* of his *Kavthisa* on the ground that the Greek has *s*, though the Kharoṣṭhi *Kat(?) piṣa* has always the palatal *sh* sound (*ś*). Though the argument from the Greek, which, having no *sh*, regularly substitutes its *s*, to the Kharoṣṭhi Prākṛit, rich in *ś* and *ṣ*, is hardly valid, it must be admitted in the form *Kapsa*, *Kaphsa*, the Kharoṣṭhi itself employs the dental *s*.

58. Professor RAPSON's *Kalpiṣa* (*Kharoṣṭhi Inscriptions*, p. 316), if right, would exemplify the common change *δ>l*,

Can nothing, then, be put forward, even tentatively, in regard to the obscure second part of Mahārāja *Uvicha's* name? Evidently it cannot be demanded that from the questionable *akṣaras* a definite name should be propounded for acceptance: our knowledge is limited, and in relation to Wima Kadphises the '*Vama Takṣa* (or *kṣu*)*ma*' of the Mathura inscription⁵⁹ is a problem of nomenclature wholly unsolved. But we might well be asked to indicate what *sort of name* would conceivably be appropriate. *Uvicha/Huviṣka* being undoubtedly the main designation, the remainder might well be a title⁶⁰ or else a surname, the latter a patronymic, or a clan or nation-name or a geographical one. If it were possible to extract from the problematic lettering, let us say, the form *Vaśpaśi*, we should be tempted to account it with the *Veśpaśi* of the Mānikīālā inscription (see the Plate, no. xxvii, in *Kharoṣṭhī Inscriptions*), name of a Satrap, who, since he was a 'continuer of the Guṣaṇa lineage' (*Guṣaṇavaṃśasaṃvardhaka*), was certainly a member of the Kuṣaṇa royal house. If that reading were actually given, the word might perhaps be a patronymic. Far be it from me to propound such a reading, which would have its own *si/śi* difficulty; but it may serve as a type of what kind of name may have been appended to *Uvicha*.

It will be clear that the Khalatse inscription seems to me to prove the opposite of Professor KONOW's contention that Wima Kadphises was alive in the year 184/187 = c. 129/152 A.D. As regards Professor KONOW's other contention, that the 'India' conquered, as the *Later Han Annals* record, by Wima Kadphises was identical with the *Hinduga-desu* of the Kālakācārya story and the latter with Kāthiāwār and Sindh, and, further that Wima Kadphises was the founder of the Saka era,⁶¹ setting up the Nahapāna family as his Satraps in Western India, we have already seen (1) that *Hinduga-desu* = *Shen-tu* = *Y'in-te-ch'ieh-kuo* was a designation of India in general, so far as known (p. 21) and (2) that the first Nahapāna's period was considerably earlier than that of Wima Kadphises (pp. 12-3). There is therefore nothing to connect Wima Kadphises with Western India or with the Saka era; and the argument that the era, if founded by Wima Kadphises, should have been known in northern India, and, if not founded by Kaniṣka, has no ascertainable founder, retains all its force. As to the suggestion that Wima Kadphises may have been alive at the date (127 A.D.) of Pan Yung's report and that accordingly the Yüeh-chih invader of Chinese Turkestan defeated by Pan Ch'ao in 90 A.D., was Wima Kadphises (unless it was his father, Kujula), it is hard not to use the word 'incredible'. How could the *Former Han Annals* give the account which it gives of Kujula Kadphises and Wima Kadphises and afterwards relate the invasion of 90 A.D. without attributing it to one or other of them? And, since the invasion of 90 A.D. is certainly, no one doubts, posterior to Kujula's conquests, how could Pan Ch'ao, the victor, not be aware that Kujula, (if not his son) was the invader, and how could this fail to be reported to the Imperial court? Therefore the account of Kujula, at any rate, in the *Later Han Annals* goes back to Pan Ch'ao. But according to the view of Professor KONOW Wima Kadphises had 'conquered India' as early as 78 A.D.: therefore, if alive in 127 A.D., he must have been invader of 90 A.D., and the account of him given in the *Later Han Annals* goes back to Pan Ch'ao, and his non-identification as the invader is inexplicable. Finally—not to insist upon the great improbability of Wima Kadphises' reign (at least 78-129 A.D. = 50 years) in succession to an octogenarian father—one fails to see why the Taxilā inscription of year 136 = c. 79 A.D., according to Professor KONOW's view, should be, so he maintains,⁶² dated in Kujula's reign, when Wima had already 'conquered India' and founded the Saka era.

59. *Arch. Survey of India Report*, 1911-2, pp. 124-5.

60. Professor KONOW has suggested (*J. Bombay Branch of the R. A. S.*, 1925, p. 8 and n. 19, *Kharoṣṭhī Inscriptions*, p. 148) that *Veśpaśi* is a title = *viśvāsika*.

61. *Acta Orientalia*, III, p. 68, V, pp. 33-5, *Kharoṣṭhī Inscriptions*, pp. lxvii-viii.

62. *Acta Orientalia*, III, pp. 643-4, *Kharoṣṭhī Inscriptions*, pp. lxiy-vi, 76.

LEGAL RESPONSIBILITY OF PHYSICIANS IN ANCIENT INDIA FOR THEIR CARELESSNESS IN MEDICAL TREATMENT

By

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1. To the curiosities of the Ancient Indian Law belong *inter alia* the notion of legal responsibility of physicians for their carelessness. Although the Indian law is not the oldest in which this legal responsibility is put in force, it is one of the oldest. Probably the oldest code in which we can find the rule concerning the medical responsibility of physicians for their carelessness is the Hammurapi's Code of Law. According to this code the physician who operates on a man or an animal and causes death is liable, in case of a man, to the penalty of having his fingers cut off (*lex tallionis*); and in case of a slave he has to give another slave of the same kind.¹

The Ancient Indian Dharmaśāstras and Arthaśāstras codify this question in a similar manner but their codification is more detailed and from the point of law better arranged.

2. It is evident from the Dharmaśāstras that the physicians belong to persons of a lower class. Vās.² refers to Mn. and states that neither a physician (*cikitsaka*) nor a trader, nor an actor, nor he who obeys a Śūdra's command, nor a thief can be called a Brāhmaṇa.³

The food of a physician (*cikitsaka*) is considered as pus⁴ and should never be eaten by a Brāhmaṇa.⁵ a physician (*cikitsaka*) must not be invited to a Śrāddha⁶ say the Dharmaśāstras, which is one more proof that their position was rather low.

However, life is stronger than law.⁷ The physician (called *vaidya*) who saves another person's life because of his learning is highly esteemed and honoured.

As it results from the Ancient Indian Literature he is once accompanied to the door of the palace⁸ and another time he receives a remuneration amounting to 200,000 *kāhāpaṇas* which he has to share with the king Bimbisāra⁹ etc.¹⁰ and even the same Dharmaśāstras which say in one place that the physician is a person of low class, in another mention him among mother, father, sacrificial and domestic priest, teacher, child, old and sick persons, paternal relatives, kinsmen, maternal connections, brother etc.¹¹ and state that one should never have a dispute with these persons. However, neither Mn. nor Y. use for the meaning of a physician the word *cikitsaka* or *bhiṣaj*, but use the word *vaidya*¹² which means "highly educated."¹³

The importance of the physicians and his great importance in everybody's life is also evident from Vi.¹⁴ where we read that a *snātaka* must not live in a kingdom in which there are no physicians, also K. understanding their necessity states that the physician (*bhiṣaj*)

1. § 218 etc.

2. Vās. III-3.

3. Mn. IV, 212, Y-I-162, G. XVII-17, Vi. LI-10, Vās XIV-2, Āp. I, 6, 18, 21, I-6, 19, 15, MBH. XII-35-30.

6. Mn. III-152, Vi. LXXXII-9.

7. See "The Harmonising of Law with the Requirements of Economic Conditions according to the Ancient Indian Dharmaśāstras, Arthaśāstras and Gṛhyasūtras by L. STERNBACH A.B.O.R.I., Vol. XXIII, p. 524.

8. LEUMANN, *Die Nonne* p. 438.

9. Mahāvagga VIII-1, 16.

10. J. J. MEYER'S Das altindische Buch von Welt und Staatsleben, Leipzig, Zus, 521, 27 (p. 813-814).

11. Mn. IV-179-180, Y-I-157-158.

12. Mn. IV-179, Y-I-157.

13. Therefore one can be in doubt as to whether these passages relate to physicians. In any case, if it relates to physicians it relates to a special kind of them, that is to highly educated ones.

14. Vi. LXXI-66.

should be in the vicinity of the king for his personal safety ;¹⁵ he also hands over to the king medicines which have been proved by experiments.¹⁶

The physician (*cikitsaka*) is also considered as a non-suspicious person even if he moves in the vicinity of royal buildings or goes at night in spite of curfew orders, and this regardless of what work is actually performed by him.¹⁷

K. also considers physicians as persons who enjoy confidence and therefore decides that, for instance, the envoys should use as spies for their own aims some persons disguised as physicians (*cikitsaka*)¹⁸ or to use physicians (*cikitsaka*) as spies in order to make peace and break it as soon as it is convenient for the king or commander-in-chief.¹⁹ On the other hand K. advises the use of physicians (*cikitsaka*) as spies in order to poison seditious ministers²⁰ or persons of seditious character.²¹

3. The responsibility of physicians for their careless medical treatment is only settled in three Dharmaśāstras, namely in *Mānava-Dharmaśāstra*,²² *Yājñavalkya-Dharmaśāstra*,²³ *Viṣṇu-Smṛti*²⁴ and in *Kautilya's Arthaśāstra*.²⁵

Although the Ancient Indian sources of law do not protect the patient directly because the patient does not get any indemnity in case of careless medical treatment on the part of the physician, neither his heirs get it in case of the death of the patient caused by a physician, but physicians are liable to penalties for their careless medical treatment which are collected by the king (state). This penalty is not similar to the penalty fixed in the Hammurapi's Code because the Ancient Indian sources of law do not fix the *lex tallionis* but impose on the physician a fine, the extent of which varies according to circumstances.

4. The Ancient Indian sources of law make a difference whether

A. persons, or B. animals

are subjected to medical treatment and, in case of persons, whether the patients are

a. ordinary persons, or b. king's men (servants).

5. The rule concerning the responsibility of physicians for careless medical treatment is expressed in Mn.²⁶ in the following words :

चिकित्सकानां सर्वेषां मिथ्या प्रचरतां दमः ।

"All physicians who act incorrectly are liable to punishment."

This responsibility for the "incorrect acting" is settled in detail in V. and VI.

Y.²⁷ states : मिषड्मिथ्याचरन्दायस्तिर्यक्षु प्रथमं दमम् ।

मानुषे मध्यमं राजमानुषेषूत्तमं दमम्

"A physician who acts incorrectly should pay the first amercement in case of animals, the middlemost in case of men and the highest in case of king's men."

Vi.²⁸ states : मिषड्मिथ्याचरन्नुत्तमेषु पुरुषेषु ।

मध्यमेषु मध्यमम् ।

तिर्यक्षु प्रथमम् ॥

"A physician who acts incorrectly should pay the highest amercement in case of persons of the highest rank" (171).

"The middlemost (amercement) in case of persons (172).

15. K. 43, 19 (§ 21).

16. K. 44, 1-2 (§ 21).

17. K. 146, 6 (§ 36).

18. K. 31, 4-5 (§ 16).

19. K. 316, 11 (§ 123-124).

20. K. 240, 3 (§ 89).

21. K. 246, 13 (§ 90).

22. Vi V-171-173, according to DUTT's edition and Vi V-175-177 according to JOLLY's edition.

22. Mn.

23. Y.

24. Vi.

25. K.

26. IX-284.

27. Y-II-242.

"The first amercement in case of animals" (173).

• These two Dharmaśāstras regulate this question in an identical manner. They distinguish three penalties in three different cases.

Mn.²⁹ regulates this question in a different manner. We read there

अमानुषेषु प्रथमो मानुषेषु तु मध्यमः

"In case of non-human beings (physicians are liable to) the first, in the case of human beings to the middlemost amercement."

Hence Mn. distinguishes two different cases and two different penalties.

On the other hand K.³⁰ settles only one case *i.e.* the responsibility of physicians for their careless medical treatment of persons only. We find there the following sentence :

कर्मापरोधेन विपत्तौ मध्यमः । कर्मवधवैगुण्यकरणे दण्डपारुष्यं विधात् ॥

"(Physicians) who undertake medical treatment and death occurs in case of carelessness (are confirmed to) the middlemost (amercement). In case of increase of disease because of negligence—the punishment fixed for injury should be applied."

6. It results from the above mentioned sentences that the rule concerning the responsibility of physicians for their carelessness in medical treatment is confirmed.

But Mn.³¹ says : चिकित्सकानां सर्वेषां मिथ्या प्रचरतां दमः

Y.³² and Vi.³³ also use the word *mithyā* which strictly speaking means "without any result" or "uselessly." Therefore it is doubtful whether मिथ्या means "without any result" or "incorrectly." There is a great difference from the point of view of law. To act without any result does not mean any guilty act but under the meaning "incorrectly" we understand a guilty act, at least (*culpa levis*).

This indistinction is explained by the commentators.

Medh.³⁴ says that the word *mithyā* means the complete lack of medical knowledge or carelessness on the part of the physician. We read there :³⁵ "The prescribing of medicines by dishonest practitioners may be done in two ways :

1. it may be due to the man being entirely devoid of theoretical and practical knowledge, or

2. to negligence or greed, even though the knowledge of the science is there."

Medh. does not even mention uselessness or cure without any result as probably it was for Medh. completely self-evident that it does not apply to this case.

Mit.³⁶ commentator on Y. understands under the expression मिथ्या such a physician who in order to gain his livelihood poses himself as a well qualified physician but in reality does not know the science of medicine.

It is evident that Mit. knows only the first contingency as stated by Medh. Hence it is not negligence or carelessness but ignorance of medical treatment.

However, probably, life brought about another settlement, and the physician became chiefly responsible for his carelessness and negligence. It seems to be evident from the only ancient Indian source of law which clearly regulates this matter, that is Kautilya's Arthaśāstra ; we read in K. :

कर्मापरोधेन विपत्तौ मध्यमः । कर्मवधवैगुण्यकरणे दण्डपारुष्यं विधात् ॥

Hence K settles this matter in the wisest manner ; K. knows two different cases. This distinction is made not *ad personam* but *ad rem*. The penalty depends on the fact whether :

(a) the patient died, or

(b) the illness of the patient increased,

and it is indifferent to what social class the patient belonged.

29. Mn. IX-284.

30. K. 203, 13 (& 76).

31. Mn. IX-284.

32. Y-II-242.

33. Vi. V-111.

34. Medh. *ad* Mn. IX-284.

35. According to JHA's translation of *Mamu-Smyti*, Calcutta 1926 Vol. V-pp. 211-212.

36. Mit. *ad* Y. II-242, p. 137.

7. As mentioned above according to Mn. the penalty depends on whether ;
 (1) a non-human being, or (2) a human being

suffered a loss because of medical treatment, and according to Y and Vi. whether it is

- (1) an animal, (2) a middle class man, or (3) a king's man.

Under the expression *amānuṣa* (a non-human being) Medh.³⁷ understands cows, horses, elephants and so forth and Mit.³⁸ under the expression *tiryāṇc* lower animals.

It is unquestionable that, from the point of view of law, the expression *tiryāṇc* used in Y. and Vi.³⁹ is not well used by the author or authors of these Smṛtis and the word *amānuṣa* in Mn.⁴⁰ is a much better expression because the codificators' aim was in principle to take under protection every living being which is not human. However, in practice this rule could be applied only to such living things as were cured by a physician or better to say by a veterinarian i.e. a physician for animals (*tiryāṇc*) only.

Although Mn. mentions only human beings (*mānuṣa*) as victims, Y. and Vi. mention *rājamānuṣa* or *uttamamānuṣa* on one hand, and *mānuṣa* or *madhyama* on the other.

Rājamānuṣa or *uttamamānuṣa* are persons of a higher class, especially king's officials (king's person) and *madhyama* or *mānuṣa* are other common persons, persons of middle class. According to which category of persons the victim belongs, the fine will be greater or less. The rule is that the higher the social class to which the victim belongs, the higher will be the responsibility of the physician for his carelessness. On this subject Mn. is more democratic as he imposes the same penalty on the physician for his carelessness, regardless of the social class of the victim.

8. In principle the fine is the same in all the ancient Indian sources of law. In case of non-human beings, that is animals, the first amercement will be imposed.⁴¹ But according to Mn. and Vi. the first amercement amounts to 250 *paṇas*⁴² and according to Y. to 270 *paṇas*.⁴³

In case of human beings, regardless of their rank, Mn. imposes the middlemost amercement i.e. 500 *paṇas*.⁴⁴ According to Y. and Vi. in case of persons who belong to the middle class, the middlemost amercement is to be imposed.⁴⁵ According to Vi. this middlemost amercement amounts also to 500 *paṇas*⁴⁶ but according to Y. amounts to 540 *paṇas*.⁴⁷ In case of persons of the highest rank the highest amercement⁴⁸ is to be imposed. This highest amercement amounts according to Vi.⁴⁹ to 1000 *paṇas* and according to Y.⁵⁰ to 1080 *paṇas*.

According to K. in the case of the patient's death, it is the most dangerous case, the middlemost amercement is to be imposed⁵¹ which amounts from 200-500 *paṇas*,⁵² and in the less dangerous case, that is the prolongation of the disease, the punishment fixed for injuries should be imposed.⁵³ This last penalty varies and amounts to 3-24 *paṇas*.⁵⁴

The rule applied here is very clear and self-evident : depending on the higher class of persons wronged (Mn., Y., Vi.) or on the higher wronged object (K.) the higher penalty is to be imposed.

9. In K. we can find two other very interesting administrative and police rules which refer to physicians.

We read in one place :

भिषजः प्राणबाधिकमनाख्यायोपक्रममाणस्य विपत्तौ पूर्वस्ताहसदण्डः ॥⁵⁵

37. Medh. *ad* Mn. IX-284.

38. Mit. *ad* Y-II-242, p. 137.

39. Y-I-242, Vi V-173.

40. Mn. IX-284.

41. Mn. IX-284, Y-II-242, Vi V-173.

42. Mn. VIII-138, Vi IV-14.

43. Y-I-365.

44. Mn. VIII-138.

45. Y. II-242, Vi. V-171.

46. Vi IV-14.

47. Y-I-365.

48. Y. II-242, Vi. V-172.

49. Vi IV-14.

50. Y-I-365.

51. K.

52. K. 192

53. K.

54. K. § 73.

55. K. 203, 13

"Physicians who undertake a perilous medical treatment without informing and if death follows, are confined to the lowest fine."

In another place we read :

चिकित्सकः प्रच्छन्नव्रणप्रतीकारकारयितारमपथ्यकारिणं च गृहस्वामी च निवेद्य (गोपस्था निवेद्य) गोपस्थानिकयोर्मुच्येतान्यथा तुन्यदोषस्त्यात् ॥

"Any physician who undertakes in secret the treatment of a patient from wounds or excess of unwholesome food or drink, as well as the master of the house, are only innocent when they report to the *gopa* or *sthānika*, otherwise both of them are equally guilty with the sufferer."

In other words the physician in order to safeguard himself from a penalty which could be imposed on him when treating a grievous case which might cause death, should inform the corresponding office i.e. the *gopa* or *sthānika*. In case he does not inform the office and death occurs he is liable to the first amercement which amounts from 12 to 96 *panas*.⁵⁶ The physician should also immediately inform the *gopa* or *sthānika* in cases of being called to a patient who might be suspected of concealing his whereabouts. For the medical treatment of such a person, regardless of whether it be a wound or an excess of unwholesome food etc.⁵⁷ the physician, as well as he who entertains the patient in his house, is liable to the same penalty as the patient.

This rule is well known in contemporary codes as well. These are the rules which are introduced particularly during war or in a state of emergency in order to find out the whereabouts of partisans or underground workers.

The police State of Candragupta Maurya⁵⁸ introduced in the 4th century B.C. special "modern" legal rules. It illustrates one more peculiarity and curiosity of the Ancient Indian Law.

POST-RAGHUNANDANA SMṚTI WRITERS OF BENGAL

By

SURES CHANDRA BANERJI, Dacca.

GOPĀLA NYĀYA-PAÑCĀNANA

The name of Raghunandana is now-a-days a household word among the Hindus of Bengal. To him is given the credit of taking up for the first time a critical and scientific study of *smṛti* or the religious law in the province and of systematising the vast mass of *Smṛtic* rules into useful compendiums. In all religious matters in the life of a Hindu of Bengal the authority of Raghunandana is held supreme. Whoever cares to enquire about other *Smṛtic* writers of this province either preceding or succeeding him? Among the pre-Raghunandana writers the name of Jimūtavāhana is gratefully remembered by posterity but he is the accredited founder of the Bengal school of secular law and has little voice in purely religious matters. It is erroneous to suppose that in Bengal the scientific study of *Smṛti* began with Raghunandana and with his passing away it came to a standstill. It will also perhaps be doing injustice to the dynamic personality of Raghunandana if we think that he merely innovated the critical method of studying the subject, but could leave no legacy to the posterity in the shape of a spirit of enquiry. It seems that there has always been a current of *Smṛtic* studies in this province, now rising now ebbing out reaching the highwatermark in Raghunandana's times. It may appear curious that while Raghunandana is remembered by one and all, the other writers should entirely sink into oblivion. It is, however, possible that Raghunandana, by

56. K. 203, 13

57. The diseases are enumerated only by example.

58. I admit that Kauṭilya's Arthasāstra gives a splendid picture on the State and legal rules of the time of Candragupta Maurya and his Minister Kauṭilya, although it is doubtful whether this Arthasāstra was really written in these times,

his flash of originality, outshone and eclipsed all others both preceding and succeeding himself, and the people in general had their eyes blinded by the dazzling glow of this great Smārta luminary and naturally could not even cast a side-glance at others.

It may be that the writers following the footsteps of this giant of a scholar could produce nothing comparable to his works, yet it is worth while to consider how many of them were initiated to the method innovated by their predecessor and also assess the proper value, however small, of such later writings.

Of the post-Raghunandana Smṛti writers of Bengal Gopāla Nyāyapañcānana appears to have been very prominent. The existence of a large number of MSS. of his works and also of numerous copies of the individual works, both in Bengal and outside, itself bears testimony to the wide popularity enjoyed by this writer in the period immediately following Raghunandana. Almost all the Catalogues of different collections of MSS. in this province and also in Mithilā contain a fair number of MSS. of Gopāla's works. Though the name Gopāla is rather common in medieval Bengal, yet our author is distinguished by the epithet Nyāyapañcānana. That at one time he was very well-known is borne out by the fact that in a good number of MSS. he is simply styled as Nyāyapañcānana, and his name does not appear at all. Another sign of the wide study of his works is that of the numerous MSS. a considerable number has been found in each of the prominent districts of Bengal, viz., Bogra, Nadia, Dacca, Sylhet, Faridpur, and Hughly. If the provenance of MSS. proves anything, though very tentatively, we may hold that Gopāla enjoyed popularity alike in the eastern and western parts of Bengal. The fact that Sylhet claims a fairly large number of MSS. does not, however, prove anything conclusively about the author's influence in Assam because Sylhet may be considered as a part of Bengal both geographically and culturally. Whatever might have been the actual extent of his influence over the contemporary society, by the volume and number of his works he certainly stands alone among the post-Raghunandana Smṛti writers and easily supersedes them.

Is it without any real purpose that Gopāla, apparently a scholar of repute, devoted his time and energy to the compilation of these works? It is our general impression that the Smṛti writers of Bengal flourishing after Raghunandana were mere epitomists with no claim to any contribution whatsoever. A general survey of Gopāla's works reveals that he also epitomised the works of Raghunandana, but even as epitomes his works possess certain distinguishing characteristics and as such deserve closer study. He traverses almost the same field as Raghunandana does, makes handy compendiums in simple and graceful style, scrupulously avoids subtle academic discussions and gives us, in a nutshell, a lucid exposition of the accepted Smṛti rules. He leaves a stamp of his originality in the pages of his works where he subjects Raghunandana's views to a critical examination instead of blindly following him, although in most cases he ultimately upholds the opinion of his predecessor. From his critical acumen, simple language, and the popular method of treatment he appears to have been a teacher whose business it was not to refute the views of Raghunandana but to teach his works in a way that would make them accessible to the less learned section of the Hindu community. As an epitomist he is successful, as an expounder brilliant and unrivalled. It is not our business in this paper to make a comparative study of the contents of each of the individual works of Raghunandana and Gopāla in order to show the exact extent and quality of the latter's contribution. This is reserved for a future paper. We propose herein to ascertain the precise number of works written by Gopāla and also to make an idea of his personal history and date.

DATE AND PERSONAL HISTORY OF GOPĀLA

Of all the dated MSS. of Gopāla's works known till now the earliest one bears the date Śāka 1544 (or, 1622 A.D.).¹ This, therefore, supplies the lower limit of Gopāla's date.

Certain MSS. of the *Āsauca-nirṇaya* of Gopāla contain the following lines at the end but before the colophon :—

1. *Sambandha-nirṇaya* dated Śāka 1544 (See *Des. Cat.* of MSS. in Mithilā, Vol. I, p. 493. No. 417.).

शके रसैर्वहिशरेन्दुमाने मन्वादिशास्त्राणि विचार्य यत्नैः ।

धीराः कृतेयं परिपालनीयाः विभाव्य दोषाः परिभावनीयाः । २

This raises a doubt as to whether this was a remark of the author himself and, therefore, the date hinted at in it is his own. In that case he lived in Śāka 1536 or 1614 A.D. Some of the MSS. containing the above couplet read शरैः for रसैः, the former representing the number 5 and thus making a difference of only one year which may be ignored. The reason for assuming these lines to have been written by Gopāla himself is that it appears before the colophon. Moreover, in one of the MSS. containing these lines the date of copying it is given as San 1174 (CIRCA 1768 A.D.) thus precluding the possibility of the above lines referring to the copyist's date. The arguments against the authenticity of these lines are more cogent and convincing. In the first place, such a verse hinting at the author's date does not occur in any of Gopāla's works excepting the *Aśauca-nirṇaya* and even then only very few of the numerous MSS. of this work contain this particular couplet. At best we may take 1614 A.D. instead of 1622 A.D. as the lower limit of Gopāla's time.

It is difficult, if not impossible, to determine the upper limit. The latest modern writer mentioned by Gopāla is Raghunandana so that the lower limit of Raghunandana's age will serve as the upper limit of Gopāla's time. The lower limit of Raghunandana's date is generally placed in the third quarter of the 16th century A.D. Therefore, there is an interval of only a little over forty years between the lower limits of these two writers. Thus even if we assume the earliest dated MS. (1614 A.D.) to have been copied during the life-time of Gopāla the possibility of his having been a later contemporary of Raghunandana is by no means precluded. Usually, however, an author requires ripe experience and long-established reputation in order to be considered as an authority throughout a country or province. Had Gopāla not been a writer of established fame his works could not possibly have been so extensively copied throughout the length and breadth of Bengal. If that be admitted we must have to consider Gopāla as flourishing in the closing years of Raghunandana's life. From the above we place Gopāla roughly in the latter half of the 16th century A.D.

The occurrence of the name of Gopāla in the concluding verse of the *Vivādārṇava-setu*, the huge digest of law, prepared by eleven Pundits at the instance of Warren HASTINGS in about 1773 A.D., led MM. Haraprasad SASTRI to conclude that the name referred to Gopāla Nyāya-panīcānana. According to SASTRI he "was an old man of Navadvīpa when employed by Warren HASTINGS."

We have seen before that from dependable evidence Gopāla Nyāya-panīcānana may be said to have lived in the latter half of the 16th century. This precludes the possibility of this author being identical with the person so named in the *Vivādārṇava-setu*, because this work was compiled nearly two hundred years after the birth of Gopāla Nyāya-panīcānana. Even if we leave aside the evidence of the doubtful verse of the *Aśauca-nirṇaya*, which hints at the date of Gopāla, we cannot possibly push down the lower limit of his time beyond 1622 A.D. when the earliest known MS. of his work appears to have been copied. Even if we suppose that Gopāla was young at the time when this earliest MS. was copied we cannot reasonably hold that he was one of the compilers of the *Vivādārṇava-setu*, prepared after the lapse of a century and a half. All this makes us conclude that Gopāla Nyāya-panīcānana, the author of the Smṛti compendiums the names of which end with the word "nirṇaya" was somebody different from the later Gopāla mentioned in the *Vivādārṇava-setu*. This supposition has more than a mere conjectural value. The absence of the well-known epithet "Nyāya-panīcānana" after the name of Gopāla in the concluding verse of the *Vivādārṇava-setu* confirms our conjecture. Another argument, though tentative, against the identity of these two authors is that had the same author produced the two treatises on law, viz., this *Vivādārṇava-setu* and the *Dāya-nirṇaya* it may be expected that these two words would have cited each other at least in peculiar legal problems.

2. Cp. (i) *Des. Cat of MSS. in Mithilā*, Vol. I, No. II. (ii) MITRA'S *Notices*, vol. ix, p. 267, No. 3188. (iii) *Dacca University MSS. No. 113B, 327C, 199A*.

Among the MSS. of Gopāla's works noticed by SASTRI the earliest one is dated Śaka 1643 (or 1721 A.D.). Probably for want of MSS. of earlier dates SASTRI did not see the absurdity of Gopāla Nyāya-pañcānana being associated with the compilation of the *Vivādārṇava-setu*. H. P. SASTRI seems inclined to say that Gopāla Nyāya-pañcānana was variously known as Rāmagopāla Tarka-pañcānana, Gopāla pañcānana and Ramagopāla Nyāya-pañcānana.³ But neither the name "Ramagopala" nor the epithet "Tarka-pañcānana" is found in the extant works of Gopāla Nyāya-pañcānana. Hence the mention of Rāmagopāla in the list of the compilers of the *Vivādārṇava-setu* seems to indicate a different writer. J. C. GHOSH, following the Navadvīpa tradition, holds that Rāmagopāla Nyāyalampkāra of Navadvīpa was one of the compilers of the *Vivādārṇava-setu*.⁴ A comparison of the few extant MSS. of Gopāla Nyāyalampkāra with those of Gopāla Nyāya-pañcānana point to their different authorship.⁵

Gopāla is silent about himself. In his works he is diversely styled as Mahāmahopādhyāya, Nyāya-pañcānana or simply Pañcānana. He is surnamed Bhaṭṭācāryya. If the introductory verses of one's works which often contain a salutation prove anything about the creed of their author Gopāla may be regarded as a Vaiṣṇava. In the majority of his works he salutes Viṣṇu in various forms, e.g., Kṛṣṇa, Rāma, Śyāma, and Rādhikākānta. etc. In very few of such verses, however, homage is also paid to Pārvati or Śiva. Tradition preserved among the present-day Pundits of Navadvīpa makes Gopāla Nyāya-pañcānana a resident of that place and a Vaidika Brāhmaṇa.

WORKS ATTRIBUTED TO GOPĀLA-NYĀYA-PAÑCĀNANA

The names of his works have the usual ending "*nirṇaya*" just as those of Raghunandana's works have "*tattva*." The influence of Raghunandana on Gopāla's introductory verses is clearly manifest. For instance, the introductory verses of Raghunandana's *Ekādaśi-tattva* reads as follows :—

प्रणम्य सच्चिदानन्दं परमात्मानमीश्वरम् ।

मुनीन्द्राणां स्मृतेस्तत्त्वं वक्ति श्रीरघुनन्दनः ॥

The introductory verse of Gopāla's *Sambandha-nirṇaya* is this :—

श्रीकृष्णचरणाम्भोचमकरन्दमधुव्रतः ।

न्यायचञ्चाननो विद्वान् वक्ति सम्बन्धनिर्णयम् ॥

The authenticity of some of Gopāla's introductory verses is rendered doubtful by the fact that some of the MSS. do not contain any preliminary verse at all, whereas in some cases the verses of the same work read differently in different MSS.

It is not possible for us to determine the exact number of works written by Gopāla. In a MS. of the *Aśauca-nirṇaya*, preserved in the Dacca University Collection, we find a list of two sets of works whose names end respectively with "*nirṇaya*" and "*tattva*". The works of the "*nirṇaya*" group mentioned in it are thirteen in number and are as follows :—

1. *Tīthi-nirṇaya*, 2. *Ācāra*°, 3. *Prāyaścitta*°, 4. *Aśauca*°, 5. *Kāla*°, 6. *Śrāddha*°, 7. *Dāya*°, 8. *Samkrānti*°, 9. *Suddhi*°, 10. *Sahagamana*°, 11. *Sambandha*°, 12. *Vicāra*°, 13. *Vivāda*°.

It is not clear whether this list indicates the total number of Gopāla's works in the possession of the copyist or known to him. That the copyist did not intend to make an exhaustive list of these works seems probable because of the recognised twenty-eight *tattvas* of Raghunandana only seven are stated in the list. That the above list is by no means exhaustive is also proved by the Catalogues and Notices of MSS. belonging to the different collections of MSS. in Bengal and outside. From these we learn the names of the following additional works of Gopāla Nyāya-pañcānana :—

1. *Koṣṭhi-nirṇaya*, 2. *Mala-māsa*°, 3. *Vyavasthā*° 4. *Vṛṣotsarga-kṛtya*° 5. *Yāga-vicāra*°, 6. *Adhikāri*, 7. *Saha-maraṇa-aśauca*° 8. *Durgotsava*°.

3. See Preface to *Asiatic Soc. Cat. of Sans. MSS.* by SASTRI, vol. iii, p. xxxi.

4. *Principles of Hindu Law*, vol. ii, Calcutta, 1917 (Preface).

5. Cp. *Prāyaścitta-likhāna-prakāra* (Cal. Uni. MS. No. 2527) attributed to Gopāla Nyāyalampkāra with the MSS. of *Prāyaścitta-nirṇaya* of Gopāla Nyāya-pañcānana.

The introductory verses of the *Tithi-nirṇaya* are different in different MSS. Though some of the MSS. have a different ending yet from a description of their contents they appear to be the same work with slight modifications.

It is curious that none of the MSS. of the *Ācāra-nirṇaya* contains any introductory verse at all.

The *Prāyaścitta-nirṇaya* is, in some rare cases, called *Prāyaścitta-kadamba*, a name perhaps suggested to some copyists by the occurrence of the word "*Prāyaścitta-kadamba*" in the introductory verses of the work. As the names of all other works of Gopāla end with the word "*nirṇaya*" the latter name does not seem to have been intended by the author.

The *Aśauca-nirṇaya* of Gopāla must be distinguished from the work of the same name attributed to one Vidyāraṅkāra.⁶

The *Kāla-nirṇaya* is also sometimes designated as *Mala-māsa-kāla-nirṇaya* perhaps because some MSS. end with the words इति मलमासकालनिर्णयः संपूर्णः ॥ It may be noted that unlike the usual introductory verses of the *Namaskriyā* type the introductory verse of this work is of the *Vastu-nirdeśa* variety.

An anonymous work entitled *Śrāddha-nirṇaya*, noticed in the Calcutta Sanskrit College Catalogue (No. 428), appears to be a different work from the *Śrāddha-nirṇaya* of Gopāla.

The colophon to a MSS. of the *Dāya-nirṇaya*, variously known as *Dāyabhāga-nirūpaṇa* (or *nirṇaya*), makes it a part of the *Vivāda-nirṇaya* of the same author. But the fact that these two were independent works is established by the following remark of the author in his *Vivāda-nirṇaya* :—

अथ दायभागः । तत्र मनुनारदौ.....तद् विवादपदं दायभाग इति प्रोक्तः । विशेषस्तु दायनिर्णये अनुसन्धेय इति ।

Thus we find that in the *Vivāda-nirṇaya* "*Dāyabhāga*" is just briefly referred to as one of the eighteen subjects of dispute. But *Dāyabhāga* in all its aspects is the subject-matter of the separate work, viz., the *Dāya-nirṇaya*. The introductory verse of this work differs in different MSS. From the above *Dāya-nirṇaya* seems to have been the real name of the work. A MS. of the *Dāya-nirṇaya* is named *vivāda-nirṇaya* perhaps from the false idea that the former was a part of the latter.

Certain MSS. of the *Suddhi-nirṇaya* contain different introductory verses. In one of the verses we are told that this work was composed after the *Aśauca-nirṇaya* (c.p. अशौच-निर्णयं कृत्वा क्रियते शुद्धिनिर्णयः ।)

No work entitled *Saha-gamana-nirṇaya* is known to us. A small work named *Saha-maraṇa-aśauca-nirṇaya*, covering only about three folia, is found mixed up with a few other works of the "*nirṇaya*" group in the Dacca University collection. In this little book we find mention of the persons competent for *Saha-maraṇa*, the merits of the practice, and also the procedure of this rite along with the kind of *Aśauca* resulting therefrom. The *Aśauca-nirṇaya* of Gopāla contains a few lines about this *Aśauca* under the heading "*Saha-maraṇa-aśauca-nirṇaya*" but mentions nothing about the other details connected with this practice as given in the above work. This leads us to suppose that the *Saha-maraṇa-aśauca-nirṇaya*, perhaps also called *Saha-gamana-nirṇaya*, was a separate book.

The *Sambandha-nirṇaya* is variously known as *Vivāha-nirṇaya* and *Udvāha-nirṇaya*.

A MS. of the *Vicāra-nirṇaya* in the Dacca University ends with the words इति याग-विचारनिर्णयः संपूर्णः but it is really the first part of the *Vicāra-nirṇaya* the other part being devoted to *Dāna*.

A MS. entitled *Adhikāri-nirṇaya*, mentioned in MITRA'S Notices,⁸ deals with persons qualified to perform *Śrāddha*. But as there is no colophon we cannot ascertain whether this is a work of Gopāla. The description of the contents does not conform to the *Śrāddha-nirṇaya* of Gopāla.

6. Dacca University MS. No. 2138C.

7. See Dacca University MS. 327 J.

8. Vol. iii, p. 60, No. 1097.

The *Vyavasthā-nirṇaya* of the Dacca University collection is nothing but a part of the *Sambandha-nirṇaya* of Gopāla. An anonymous MS. of the *Vyavasthā-nirṇaya* is mentioned in the *Calcutta Sanskrit College Catalogue*.⁹ From the introductory verse it seems to contain discussions on *Tithi*, *Samkrānti*, *Āsauca*, *Suddhi*, *Adhikāri* (*Śrāddhā-dhikāri*?), *Prāyas-citta*, *Udvāha*, *Dāya*, etc.

From the foregoing pages we are in a position to say that the following works were composed by Gopāla Nyāya-pañcānana :—

1. *Āsauca-nirṇaya*, 2. *Ācāra*, 3. *Kālā°* (also called *Mala-māsa-kālā°*), 4. *Koṣṭhi°* 5. *Dāya°*, 6. *Durgotsava°*, 7. *Vivāda°*, 8. *Vicāra* (sometimes wrongly called *Yāga-vicāra°*), 9. *Vṛṣotsarga-kṛtya°*, 10. *Suddhi°*, 11. *Śrāddha°*, 12. *Saha-maraṇa* (also called *Saha-maraṇa-āsauca°*, 13. *Samkrānti°*, 14. *Sambandha°* (also called *Vivāha°*, or, *Udvāha°*).

THE AFFRICATE *c* IN DRAVIDIAN.

Already a series of forms *śkh* > *śkx'* > *śt's* in the proto-Indo-Iranian have been postulated and these have been deduced from the proto-Indo-European **gmskhō*.¹ Prof. Siddheshwara VARMA accepts this hypothesis as a definite improvement over the earlier ones and points out that *ch* must have been a plosive² in the proto-Indo-Iranian stage which is represented by a palato-alveolar phoneme in Lahnda, a modern Indo-Aryan dialect.³ In Tokharian, however, the *c* sound was apparently a palatal affricative roughly *tš*.⁴ L. V. Ramaswami AIYAR seeks to establish the affricate value of *c* in Dravidian at least in initial position.⁵

We have been informed by Prof. T. N. SREEKANTHAIA of Mysore that his analysis of the regular Mysore Kannaḍa pronunciation points to the conclusion that *c* is the blade-sound i.e. the tongue touches the back part of the teeth-ridge while it is bent making a sort of an arch and it was never the tip sound produced by merely touching the teeth-ridge. For instance, *muṣsu* 'to close' becomes roughly *muṣcu* (*muccu*) in the Mysore Kannadiga pronunciation. It occurred to us during February 1941 to investigate first-hand the pronunciation of *c* of the Todas at the Nilgiris. Our informants invariably left the initial *h* in pronouncing the word *huṣṣu* (*huccu*) 'mad' and their *c* was the regular Mysore Kannada *c* (the so-called blade-sound of Prof. Sreekanthia) perhaps in imitation. But in pronouncing the word *cāḱku* 'bag', however, our informants produced something like the dental spirant or rather more precisely, something like the articulatory sound-complex *tš* but not the affricate *tš* in which the occlusive element—something like the articulatory sound complex—was maintained and the affricate (composite sound) was totally absent. This sound-complex *tš* appears to be more like the articulation of a single predorso-denti-gingival occlusive-constrictive phoneme.⁶ The results of our investigations are no doubt very tentative in this matter. But they seem to negative the view that at least in initial position in Dravidian *c* has affricate value. We are drawing attention of scholars to this, only to point out that the whole question has to be thoroughly re-examined, in the light of field investigations of the aboriginal Dravidian dialects like the Toda and the Badaga.

Poona

C. R. SANKARAN and G. S. GAI.

9. No. 119.

1. C. R. SANKARAN, *The New Indian Antiquary*, Vol. I. 1939, p. 633.

2. Siddheshwara VARMA, *The New Indian Antiquary*, Vol. III, No. 10, 1941, p. 384.

3. Siddheshwara VARMA, *Journal of the Royal Asiatic Society of Bengal*, II. 1936. No. 2. pp. 72 and 75.

4. E. SAPITR, *Language* Vol. XII. 1936. p. 260 f. n. 3.

5. L. V. Ramaswami AIYAR, *Journal of the Oriental Research Madras*, Vol. XI, 1937. pp. 3 and 4.

6. For this term see E. F. HADEN, *The Physiology of French Consonant Changes*. Language Dissertations, No. 26. Supplement to *Language*, Vol. 14. 1938. p. 41.

BHĀNUKARA

By

G. V. DEVASTHALI, Nasik.

Several attempts have been made up to now to give some information about the poet Bhānukara, who is also otherwise styled as Bhānudatta or Bhānukaramiśra; and Dr. H. D. SHARMA¹ seems to be the last writer who has made an attempt in this direction. But even he, it seems, was constrained to put forth only surmises rather than facts which could be established on the strength of some solid piece of evidence. Thus referring to the authorship of the *Kumāra-Bhārgaviya* (KB) he merely depends upon the ground—none too solid—that some verses ascribed in anthologies to Bhānukara refer to Paraśu-rāma or some incident in his life. Thus he writes² 'that our poet (Bhānukara) is the author of the KB, is inferred from the following verses which are apparently quoted from that work in the *Padya-racanā*.

रामे ब्राह्मणवेषधारिणि धनुर्धृत्वा कराम्भोरुहे
संजन्याङ्गुलिकान्मारचयितुं कैलासमाकर्षति ।
तात त्राहि सुत प्रयाहि दयिते निर्याहि सौधाद्वहि-
र्वारं वारमयं पुरान्तकपुरक्षोभः शिवायास्तु वः ॥
मूर्ध्नो मन्मथशासितुर्विगलिते क्षीराशयास्वादिते
वक्त्रे बालतुषारभासि परितः कण्ठोदरे तिष्ठति ।
शेषं वीक्ष्य विलोलशोणनयनं भिन्नाधरौष्ठश्रियं
व्यातन्वन्करतालिकां विहसितं बालो विशाखो दधौ ॥
शृङ्गे शिरोषमालां कण्ठे घण्टां पदेषु मञ्जीरम् ।
विन्यस्य प्रतिभवनं भर्गवृषं भ्रामयामास ॥

Now this argument regarding the authorship of the KB is, to say the least, too flimsy. The first of the above-quoted verses is found in the *Alamkāra-tilaka* (AT) given as an illustration of the figures called Atiśaya. Where then is the necessity of assuming that it is quoted from a work called the KB? As for the other two verses, they in fact contain little that would warrant the assumption of such a work. It is, therefore, difficult to draw any definite conclusion from these verses regarding the authorship of the KB as Dr. SHARMA has tried to do.

Still less definite he is regarding the authorship of the AT and the *Śṅgāra-dīpikā* (SD). In this connection he declares that 'it is difficult to pronounce any judgment before their MSS are thoroughly examined.'

Not less indefinite is he regarding the question of the native place of Bhānukara, though he has shown his inclination to give that honour to either Benares or Allahabad. This absence of definiteness is evident from the fact that after discussing this question at some length he ultimately remarks, "However, nothing can be said definitely about his native place and the problem raised by the two terms Videhabhūḥ and Vidarbhabhūḥ yet remains to be solved."³

Thus it will be seen that (i) the question of the authorship of some of the works ascribed popularly to Bhānukara, (ii) the question of the exact number of works composed by

1. quote
pp. 243, 21, 2
2. प्रसाम्भो

3. 'The Poet Bhānukara' in the *Annals of the B. O. R. I.*, Vol. XVII,

3. *Ibid*, p. 247.

him, and also (iii) the question of his native place still stand in need of further investigation which it is proposed to carry on in the following lines.

Taking up first the question of the authorship of the AT. we may refer to the verse 'क्षोणीपर्यटनं श्रमाय विहितं वादाय विद्यार्जिता etc. which has been noticed by Dr. SHARMA. This verse we actually find in the AT given as an illustration of the figure called Akṣepa. It is also found in the *Rasa-taraṅgiṇī* (RT) as has been noticed by Dr. SHARMA also. This verse, therefore, gives us ground strong enough to conclude that the AT is a work of the author of the RT. But we need not depend merely on the evidence of this single⁴ verse occurring in these two works. There are some other considerations also which lead us to the same conclusion. All the colophons of the AT are at one in ascribing the work to Bhānukara (or Bhānudatta, or Bhānukaramiśra).⁵ In the second introductory verse⁶ the author has clearly given his name as Bhānu and styled himself sat-kavi; and the idea expressed in this verse seems to be only a continuation of the idea which Bhānukara has expressed in the concluding verse⁷ of his *Rasa-mañjarī* (RM). In fact Bhānukara seems to be fond of playing on the names of his works as can be seen from the way in which he addresses the Goddess Sarasvatī in the introductory verses⁸ of his RT. A reference to the passing away of Gaṇeśa, his father, and the indirect praise heaped upon him by our poet in a verse⁹ in

4. There are at least two more verses which are common to RT and AT.

They are :

सप्तमोनिधितीरहीरपटलालङ्कारिणीं मेदिनीं
दातुं विप्रकुलाय योजितवतः सङ्कल्पवाक्ययोगमम् ।
नाभीनीरुह्यात् सरोरुहभुवा तत्कालमाविष्कृते
हस्ताम्भोरुहि भार्गवस्य किमपि व्रीडास्मितं पातु वः ॥
भूयादेष सतां हिताय भगवान् कोलवतारो हरिः
सिन्धोः क्लेशमपास्य यस्य दशनप्रान्ते स्थिताया भुवः ।
तारा हारति वारिदस्तिलकति स्वर्वाहिनी माल्यति
कीडादर्पणति क्षपापतिरहर्देवश्च ताटङ्कति ॥

The former is given in the AT as an illustration of लाटो (fol. 2b. of the B.B. R.A.S. MS.), and is also found in the RT (fol. 29a of B.M.C. 21·2 of the Bombay University Library). The latter is found in the RT. (fol. 24b of B.M.C. 21·2 of B. U. Library) and forms the introductory verse of the AT where, however, according to all the MSS that I have gone through, the verse begins 'सोयं वो मुदमातनोतु भगवान्' instead of 'भूयादेष सतां हिताय भगवान्'

5. I find that these names are indiscriminately used in the three MSS. of the AT that were available to me.

6. The verse is : उरःस्फुरदलङ्कारचमत्कारपटुश्रियः ।

तनोति तिलकं भाले भारत्या भानुसत्कविः ॥

(fol. 1b of the B.B.R.A.S., MS. of the AT.).

7. The verse is : तातो यस्य गणेश्वरः कविकुलालङ्कारचूडामणिः

देशो यस्य विदेहभूः सुरसरिकल्लोलकिर्मांरिता ।

पथेन स्वकृतेन तेन कविना श्रीभानुना योजिता

वाग्देवीश्रुतिपारिजातकुसुमस्पर्द्धाकरी मञ्जरी ॥

8. The verses are : भारत्याः शास्त्रकान्तरभ्रान्तायाः शैत्यकारिणी ।

क्रियते भानुना भूरिसा रसतरङ्गिणी ॥

वाणीकमलिनी भानोरेषा रसतरङ्गिणी ।

हंसाः कृतधियस्तत्र युक्तमत्र प्रतीयताम् ॥

9. Cf. ताते निर्गच्छति गणपतौ नाकमद्यापि तस्याः

वाचां देव्यास्त्यजति शिथिलं कङ्कणं नैव दोष्णोः ।

his *RT* has been noticed by Dr. SHARMA. A similar phenomenon is noticeable in the *AT*¹⁰ also. This shows that the *RT* and the *AT* are both composed by one and the same author and that too perhaps at a time when the memory of his deceased father was still lingering fresh in his mind. This conclusion is again supported by the fact that in both these works Bhānukara on almost every page is found quoting verses composed by his father under the caption, *yathā tātacaraṇānām*. There can, therefore, be no doubt that the *AT* is from the pen of Bhānukara who is the same as the author of the *RT* and consequently of the *RM* also.

Now we come to the authorship of the Kumāra-bhārgaviya. That a poem dealing with the life-story of Paraśurāma must have been composed by Bhānukara is suggested not only by some verses referring to Paraśurāma being ascribed to Bhānukara in some anthologies as has been argued by Dr. SHARMA, but also by the actual occurrence of such verses in the *RT*, which is admittedly a work of Bhānukara. Thus in the *RT* we find three verses¹¹ which are prefaced by Bhānukara with the caption *yatha Paraśurāmavākyaṃ*. Nor are references to Bhṛgu-nandana¹² wanting. Similar verses¹³ we find in the *AT* also.

अद्याप्यार्द्रमिवति कुचयोनव पाटीरपङ्को
नेत्रे निर्यत्यसि न पुनः कज्जलं स्थैर्यमेति ॥

10. भानुकर illustrates अर्थसुशब्दता by the following verse :

कविर्गणेशो वसुधां विहाय स्वर्लोकमालोकितुमाजगाम ।
देवी गिरां दीर्घतरं श्वसन्ती शैवालशय्यासु वपुर्वभार ॥

(fol. 10a of the B. B. R. A. S. MS. of the *AT*.)

11. The verses are : नाद्यारभ्य करोमि कार्मुकलताविन्यस्तहस्ताम्बुजः

किंचित्पाटलभासि लोचनयुगे तावन्निमेषोद्दृश्यात् (r. °दयात्) ।

यावत्सायककोटिपाटितरिपुक्ष्मापालमौलिस्खलन्-

मल्लीमाल्यपतत्परागपटलैरामोदिनी मेदिनी ॥ (fol. 3a.).

निःपीते कलशोद्भवेन जलधौ गौरीपतेर्गङ्गाया

होतुं हन्त वपुर्ललाटदहने यावत् कृतः प्रक्रमः ।

तावत्तत्र मया विपक्षनगरीनारीदृग्मभोरुह-

द्वन्द्वप्रसवदश्रुवारिपटलैः सृष्टाः पथोराशयः ॥ (fol. 13b.).

कोदण्डं रणभिन्नभूपतिभुजादण्डैः प्रचण्डैः कृतं

तत्र ज्या प्रतिपक्षराजरमणीवेणीगुणैर्गुम्फिता ।

क्रूराकारकुठारतारपतनप्रभृ (r. भ्र) दृष्टद्विषत्-

त्रुट्यदन्तदलैः कृतोस्ति विशिखस्तल्लक्ष्यमुद्विष (r. द्वीक्ष) ते ॥ fol. 15a.)

12. Cf.

आदर्शाय शशाङ्कमण्डलमिदं हर्म्याय हेमाचलं

दीपाय द्युमणिं महीमिव कथं नो भिक्षवे दत्तवान् ।

दित्सापल्लवितप्रमोदसलिल व्याकीर्णनेत्राम्बुजो

जानीमो भृगुनन्दनस्तदखिलं न प्रायशो दृष्टवान् ॥ (fol. 3ab.).

मातुर्दृष्टा (४. दृष्टा) दृग्मभोरुहमाल्यधारासुदारां

तातस्य प्रेक्ष्य वक्षःस्थलरुधिरचयं कुध्यता भार्गवेण ।

हस्ते न्यस्तः सहस्राङ्गुनदमनसमारम्भगम्भीरवीर्यै-

स्फु (४. स्फू) जहोर्वल्लीहल्लीसकससकलकलासूत्रधारः कुठारः ॥ (fol. 26b.).

सप्तम्भोनिधितीरहीरपटलालङ्कारिणीं मेदिनीं etc.

(fol. 29a; quoted under note 4 above). The references in this and the last note are to B.M.C. 21.2 (a MS of *RT*.) in the Bombay University Library.

13. सप्तम्भोनिधि० etc., (see note 4 above).

But as has been already pointed out above these references by themselves may suggest only a probability of the poet Bhānukara having composed a work dealing with the life-story of Paraśu-rāma and having given to it the name *KB*. But they can't help us to arrive at a definite conclusion to that effect. For it is also possible that these are only stray verses composed by our poet referring to some incidents in the life of Paraśu-rāma, just as there are verses¹⁴ in which he has referred to some incidents in the life of other deities or avatāras. Some further evidence of a more definite nature is, therefore, needed before we can be sure regarding Bhānukara's authorship of the *KB*; and this we fortunately get when we turn to I. O., No. 4040 where Dr. EGGEING has described a *MS.* of the *KB*. Among the introductory verses quoted there we get the verse :

भूयादेष्ट सतां हिताय भगवान् कोलवतारो हरिः etc.

Now this verse, as has been already pointed out above,¹⁵ occurs not only in the *RT* but also in the *AT* which are definitely the works of our Bhānukara. Here then is a circumstance which warrants the conclusion that Bhānukara is quoting this verse in his *RT* and *AT* from another work of his; and this work as is seen from the quotations at I.O., No. 4040 is none other than the *KB*. There should, therefore, be little difficulty now in ascribing the *KB* to Bhānukara the author of *RM*, *RT* and *AT*.

As regards the *Śṛṅgāra-dīpikā* (*SD*) no *MS* of this work seems to be available at present, so that it is not possible to make any statement regarding the authorship of that work.

The question of the authorship of the *KB* and the *AT* has thus been settled; and we now pass on to the next question regarding the exact number of works composed by our poet. That he is the author of *RM*, *RT*, and the *Gīta-gauripati* (*GG*) is accepted by all. As a result of the fore-going discussion we are now in a position to ascribe two more works, *AT* and *KB*, to him. But one more work our Bhānukara has composed—a work which has not been noticed upto now by any scholar. While going through a *MS* of the *AT* I found Bhānukara referring to this work of his. Treating of the *śabdālaṅkāras* in the fourth chapter of the *AT* Bhānukara informs us that he would discuss the चित्रगूढप्रहेलिकाप्रश्नोत्तराणि in another work which he would name *Chitra-candrikā* (*CC*)¹⁶. No *MS* of this work has

[13. continued]

नो सन्ध्या समुपास्यते यदि तदा लोकापवादाद् भयम्
सा चेत् स्वीक्रियते भविष्यति रवौ राजन्यबीजे नतिः ।
इत्थं कांक्षयतश्चिराद् भृगुपतेर्निश्वासकोष्णीकृतो
दृक्पातप्रतिबिम्बशोणसलिलः सन्ध्याञ्जलिः पातु वः ॥

(fol. 2b of the B.B.R.A.S. *MS.* of the *AT*.)

14. Cf.

तार्क्ष्यपक्षभवनोपसेवितं वीक्ष्य वीक्ष्य यदुनन्दनं पुरः ।
भीतभीत इव तत्र कालियो मन्दमन्दमुपसर्तुमुद्यतः ॥

(*RT*, *MS.* B.M.C. 21-2, fol. 3a. This refers to the famous कालियमर्दन incident of कृष्णावतार.)

सप्तापि रुद्धान् कपटाम्बुराशीन् पुरोपकण्ठे पुनरीक्षमाणः ।
दशौ कपीन्द्रस्य मुखे सखेलमायोजयामास स रामचन्द्रः ।

(*RT*, *MS.* B.M.C. 21-2, fol. 17a. This refers to the सेतुबन्धन incident of रामावतार,

उद्दामोद्दाममाद्यद्विभटदलनोदग्रजाग्रतप्रभावः
सोयं देवो मुदे वो भवतु नरहरिस्तारिताशेषविश्वः ।
यस्य प्रौढप्रतापोद्भटविकटसटाकोटिभिः पाटिताना-
मन्त्राण्यम्भोधराणां बहिरिव निरगुर्विद्युतां कैतवेन ॥

(*RT*, B.M.C. 21, 2, fol. 5b. Here is a reference to नरसिंह अवतार.)

15. See note 4 above.

16. चित्रगूढप्रहेलिकाप्रश्नोत्तराणि चित्रचन्द्रिकायां दर्शयिष्यामः ।

(fol. 12b. of the B.B.R.A.S. *MS.* of the *AT*.)

been noticed anywhere up to now ; nor has any one brought to light the fact that Bhānukara has composed a work bearing the name of CC. The name is completely unknown upto now as is shown by the fact that even Dr. RAGHAVAN, (the assistant editor of the *New Catalogus Catalogorum*), wrote to me that he is not aware of any such work, or any MSS. thereof. From what our poet has said about this work in the AT it is evident that the CC is a work dealing with the citra-kāvya in its several aspects. This work, of course, must be understood as being different from the SD which, as the title of the work would suggest it, deals with the *śṛṅgāra rasa* at full length, a topic which is quite different from the topic that Bhānukara intended to treat of in his CC. As regards the exact number of works composed by Bhānukara we now can say that he, to be sure, composed six works viz. GG, RM, RT, AT, KB, and CC ; while his authorship of the seventh—the *Śṛṅgāra-dīpikā* needs yet to be corroborated.

Lastly comes the question of the native place of Bhānukara. The main evidence in this connection that has been relied upon as yet is that of the declaration which the poet himself has made in the concluding verse¹⁷ of his RM. There he in clear terms has stated that his native place (that is how the word Deśa is to be understood) is the land of the Videhas. This clearly shows that Videha i.e. Mithilā is the native place of our poet. But the discovery of the variant *vidarbhabhūh* for *videhabhūh* was enough to throw doubt on this point ; and champions of the variant *vidarbhabhūh* put forth the claims of Vidarbha as against Videha. MM. KANE¹⁸ seems to have held that Bhānukara was a native of Mithilā. He further identifies our poet's father with Gaṇeśvara-mantrin, brother of Vireśvara, whose son Caṇḍeśvara composed *vivāda-ratnākara* and weighed himself in gold in 1335 A.D. Dr. SHARMA¹⁹ in this connection has rightly pointed out that Bhānukara is not quoted in the *Śaraṅgadadhara-paddhati*, composed in 1363 A.D. ; and, therefore, he could not have lived earlier than that date. He is also right when he points out that Bhānukara wandered from king to king presumably in search of patronage,²⁰ which he would not have been required to do had he really been the son of Gaṇeśvaramantrin. But though both these points in the statements of MM KANE are wrong, it does not mean that Bhānukara is not a native of Mithilā.²¹ It only means that Bhānukara's father is not to be identified with Gaṇeśvara-mantrin as is done by MM KANE and others. Nor do Dr. SHARMA's own suggestions in this connection seem to be sound enough. He tells us that Śeṣa-Cintāmaṇi in his *Parimala* describes Bhānukara as a resident of Bradhnapura ; and further adds : " This (i.e., Bradhnapura nivāsin)' seems to be equivalent to Śivapurānī-vāsin = Benares. His authorship of the *Gitagauripati* also supports this view." ²² This suggestion of Dr. SHARMA need not detain us much, since it is based upon the fanciful identification of Bradhnapura with Benares ; and also because nowhere else do we find any other fact to corroborate this idea. The argument based on the authorship of the GG is only too lame ; and the whole theory topples down when we remember that it is based on the statement of a commentator, and that it is directly contradicted by the declaration of the author himself. Even Dr. SHARMA is not sure as regards the accuracy of this view and puts forth another which suggested itself to him from the verse²³ *kṣaṇīparyāṭanam* etc.

17. The verse is quoted in note 7 above.

18. Cf. His edition of the *Sāhitya-darpana*, Introduction, pp. CXVIII f.

19. *Ibid.* p. 245.

20. *Ibid.* p. 246 f.

21. Dr. SHARMA has tacitly assumed that it is an error to hold Videha to be the native place of भानुकर and has ingeniously enough tried to show how the error originated and how it has found its vogue. All his argument is, however, based on presumption rather than any positive piece of evidence. It is also opposed to facts gathered from the works of Bhānukara himself ; and as such needs no special refutation. (For Dr. SHARMA's argument see Annals XVII, iii, p. 245 f.).

22. *Ibid.* p. 246.

23. The whole verse is : क्षोणीपर्यटनं भ्रमाय विहितं वादाय विद्यार्जिता

मानध्वंसनहेतवे परिचितास्ते ते धराधीश्वराः ।

विश्लेषाय सरोजमुन्दरदशमास्ये कृता दृष्टयः

कुक्षानेन मया प्रयागनगरे नाराधि नारायणः ।

which is already noticed above. In this connection he remarks that 'from this verse one might suspect him to be a resident of Allahabad!' And to lend further support to his suggestion the Dr. adds: 'This can also explain the fact of his having so many dākṣiṇātya commentators. For it is well known that many families of Mahārāṣṭra Brāhmaṇas have long since been established at Benares and Allahabad.'²⁴ But here the doctor is making too much capital of the verse in question. When the author himself is declaring that his native place is Videhabhūḥ (or even Vidarbhabhūḥ even if the variant is accepted), would it be right to disregard the direct statement of the author concerned and go on speculating on the basis of the casual and indirect remarks of the author himself or what is still worse the statements of some later commentator? The suggestion that Benares or Allahabad may be the native place of Bhānukara is, therefore, quite unwarranted. And among the remaining two places claiming to be the native place of our poet, the claims of Vidarbha seem to be ruled out by the fact that Bhānukara describes his Deśa as being 'beautified by the waves of the river of the gods.' This can evidently apply to Videha or Mithilā, rather than Vidarbha; and the former has, therefore, to be accepted as being the native place of Bhānukara. But this point can be more satisfactorily settled when we take into consideration the following points. The colophon²⁵ at the end of the *RT* as we find it in one of the MSS in the Bhadkamkar Collection of MSS in the University Library, Bombay, describes Bhānukara as a Maithila. Still more conclusive are the two statements which Bhānukara has made in his *AT*, in the third chapter while dealing with the doṣas. After defining and stating the varieties of the Visargadoṣa, Bhānukara goes on to illustrate that doṣa. At the end of this section we get the following verse:

उत चन्द्र उत पुरन्दर उत नल उत विक्रमादित्यः ।

उत गन्धर्व उत स्मर उत सुन्दरि मैथिलो नृपतिः ॥²⁶

The reference that Bhānukara has in this verse made to the king of Mithilā can't but bring on us the impression of our poet having some affinity to that king. This verse may, therefore, help us to conclude that our poet was a resident of Mithilā; and we find that this conclusion is further strengthened by another passage in the same chapter of the *AT* where while illustrating the doṣa called deśya our poet writes: देशसंकेतितं देश्यम् । यथा-वेदं विना द्विजो रण्डः । रण्ड इति पामरे मैथिलसंकेतितम् ।²⁷ Now there is no reason why Bhānukara should refer to the Maithila-sanketa, unless it be that he was very closely associated and acquainted with the colloquial usage prevailing in Mithilā, which would be possible only if he were a native of that place. Thus on the strength of the pieces of evidence set forth above we may conclude without any hesitation that Bhānukara was a native of Mithilā.

The question of the date, and also of the patronage, of our poet has been very ably discussed and materials throwing light on these points have been very distinctly set forth by my friend Prof. GODE; and I may leave that topic here only by pointing out that a

It must be remembered that it is not always safe to see personal reflection in each and every word written by a writer. That this verse is found in *AT* and also *RT* is already noted above. But it seems that Bhānukara has repeated this idea in his *RT*. in another verse also. Cf.

वेदस्याध्ययनं कृतं परिचितं शास्त्रं पुराणं श्रुतं
सर्वं व्यर्थमिदं पदं न कमलाकान्तस्य चेत् कीर्तितम् ।
उत्खातं सदृशीकृतं विरचितः सेकोम्भसा भूयसा
सर्वं निःफलमाल्बालवले क्षिप्तं न बीजं यदि ॥

(*RT* MS. B.M.C. 21·2, fol. 25b.).

24. *Ibid.*, p. 246.

25. The colophon is: इति श्रीकविकलासनाथगुणनाथतनयमथिलश्रीभानुदत्तविरचितायां रसतरङ्गिण्या-
मष्टमस्तरङ्गः । (*RT* MS. B.M.C. 21·2, fol. 29b.).

26. B.B.R.A.S. MS. of the *AT*, fol. 6a.

27. B.B.R.A.S. MS. of the *AT*, fol. 5a.

MS²⁸ in the Bhagvatsinghji Collection of MSS in the University Library, Bombay is dated Śaka 1512 (c. 1580 A.D.) which clearly shows that Bhānukara could not have lived later than about the third quarter of the sixteenth century A.D.

The results of the foregoing discussion may now be stated in brief as follows :

(1) The Kumāra-bhārgaviya and the Alamkāra-tilaka are the works of Bhānukara who is the same as the author of the Rasamañjarī and the Rasa-taraṅgiṇī.

(2) The works which can be ascribed to this Bhānukara with certainty are six viz. *RM*, *RT*, *AT*, *GG*, *KB*, and *CC* ; while the authorship of the seventh viz. the *Śṛṅgāra-dīpikā* needs corroboration.²⁹

(3) Mithilā, and not Vidarbha, or Benares, or Allahabad, is the native place of Bhānukara.

(4) The lowermost limit for the literary activity of Bhānukara can be tolerably fixed as about the third quarter of the sixteenth century A.D. from the fact one of the MSS of his *AT* bears the date Śaka 1512 (c. 1580 A.D.)³⁰

28. This is No. 217 of the Bhagvatsinghji Collection of MSS. in the Bombay University Library. Its date of copying etc., is recorded by the scribe in the following lines :

शाके सूर्यशरेन्दुश्च वासरे शशिनामके ।

दशम्यामसिते पक्षे मासे च तपसंज्ञके ॥

नत्वा गणेशचरणौ सुधिविह्वलौ भाले रराज तिलको ललितप्रबन्धः ।

यो भानुदत्तरचितो धियवृद्धियेतुस्तं चालिखद् द्विजवरो महत् प्रयत्नात् ॥ (fol. 42a.).

29. Dr. SHARMA towards the end of his article on Bhānukara has given us several verses which have been ascribed to that poet, but which, he declares, 'are nowhere printed, but found only in MSS.' Some of these, however, I have been able to trace in a lithograph edition of the *RM* published at Benares as far back as Śaka 1717 (c. 1795 A.D. Cf. स्वैक-सप्तभूषाके together with the व्यङ्ग्यार्थ कौमुदी a commentary thereon composed by अनन्त पण्डित. I give here the प्रतीक of these verses together with the exact reference to the pages of this edition :

स्फुरदुरसिजभारभङ्गुराङ्गी etc. p. 78 verso.

कान्ते कनक जम्बीरं etc. p. 95 verso.

सा चन्द्रसुन्दरमुखी etc. p. 99 verso.

दुःखं दीर्घतरं वहन्त्यपि etc. p. 49 verso.

लोलालिपुञ्जे व्रजतो निकुञ्जे etc. p. 22 quarto.

सङ्केतकेलिगृहमेत्य निरीक्ष्य etc. p. 61 quarto.

But still there remain about a dozen verses which have as yet remained untraced.

30. In this article I have used one MS. of the *RT* (B.M.C. 21·2), one MS of *AT* (Bs. 217) and the lithograph edition of the *RM* from the University Library, Bombay. I have also made use of two other MSS. of the *AT*, one from the B.B.R.A.S. Library and the other from the B.O.R. Institute, Poona. I am thankful to Dr. JOSHI, Mr. KAPADI and Prof. GODE for having allowed me to use these MSS. and works.

TRANSPOSITION OF -R- IN THE WESTERN VERSIONS OF THE ASOKAN INSCRIPTIONS

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HULTZSCH, in the introduction to his edition of *Inscriptions of Asoka* writes in connection with the combined consonants in the Girnar dialect :—"there are among them some ligatures in which the second consonant is placed first for the sake of convenience in writing" (p. lviii). The cases given are—*tp* written *pt*, *vy* written *yv*, *śt* written *ts*. About the conjuncts with -*r* he makes the following remarks :—"We must transcribe *kr*, *tr*, *pr*, *vr*, and not *rk*, *rt*, *rp*, *rv*. The symbol *rs*, however, does duty for both *sr* and *rs*, *rv* for *vr* and *rb*." (p. lix). In the Shahbazgarhi and Mansehra versions only the conjuncts of -*r* are said to have occurred and about these HULTZSCH writes :—"It must be remembered that whenever the above-mentioned words occur in the text the transcript shows the imperfect spelling of the inscriptions, but not the actual pronunciation" (p. lxxxvii)." I consider it more likely that the writer wanted us to pronounce *pūrvā*, but committed the mistake of connecting the -*r* with -*p* instead of inserting it before the *v*" (p. lix). He also quotes the authority of BÜHLER who had remarked that "the order of the symbols does not conform to the actual pronunciation, but to the convenience of combination."

The cases of this so-called orthographic inaccuracy are the following (HULTZSCH, p. lxxxvii) :—

- (1) *r* is combined with the preceding *akṣara*
 - (a) in *rbh* : *grabhagāra* (=Skt. *garbhāgāra*)
 - (b) in *rm* : *dhrama*, *krama* (=Skt. *dharma*, *karma*)
 - (c) in *rv* : *pruva* (=Skt. *pūrvā*)
 - (d) in *rś* : *draśana*, *Priyadraśi* (=Skt. *darśana*, *Priyadarśi*)
 - (e) in *rṣ* : *praśaḍa* (*pārṣada*)
- (2) *r* is attached to the next following consonant
 - (a) in *rg* : *vagra*, *spagra* (=Skt. *varga*, *svarga*)
 - (b) in *rṭ* : *kiṭṭi* (=Skt. *kīrti*)
 - (c) in *rth* and *rṭh* : *athra* (=Skt. *artha*)
 - (d) in *rv* : *savra* (=Skt. *sarva*)

The view that these disturbances are due to orthographic convenience or an error on the part of the scribes was, till recently, more or less the current one. But it does not seem credible in view of the following facts :—First, if it was a matter of convenience why should there arise any difficulty in inscribing some particular letters and not any other, and if the transpositions are regarded as errors of the scribes, why should they commit them only in the cases of some combinations and not in others? The common transposition of -*r* occurring in all the three western versions naturally raises this question. Second, if the transposition of -*r* was a matter of convenience or error why should we have it both in the Kharoṣṭhi (SM) and in the Brāhmī (G) versions? Both the scripts cannot have the same difficulty in the case of the same letter, nor the persons inscribing the letters can be expected to be the same so that they would commit the same mistake in case of both the scripts. Third, if there was any difficulty in cutting out the rocks as it might have been in the case of inscriptions why should the same transposition of -*r* be found in the Kharoṣṭhi manuscript of the *Dhammapada* which was written on a different material? Thus there arises considerable doubt about the explanation first given by BÜHLER and then corroborated by HULTZSCH.

I propose to show in this paper that the transposition of the letter *-r* which was common to the Western versions was not due to orthographic convenience or inaccuracy, but a linguistic phenomenon having its origin in the North-west.

The fact that the only sound which underwent shifting in the north-west version of the Asokan inscription was *-r* becomes significant. When it is found that in the Iranian language there were three conditions for transposition of which that concerning *-r* was the main (RAICHELT p. 80, § 165) and that in the old Indo-Aryan, this *-r* was the only sound which shifted its place in a number of words and forms. About the latter, MACDONELL, in his *Vedic Grammar* (p. 58) says: "Apart from the few examples of *-ra* before *-s* and *-h* there are probably no certain instance of metathesis in the RV." The fact that *-r* was solely or mainly connected with metathesis in the north-western versions of the Asokan inscriptions, old Indo-Aryan and Iranian may well serve as a clue to our investigation, and it is worthwhile to trace this phenomenon in the other dialects of the Indo Germanic family in order to see whether it is a feature common to most of the important languages, and, therefore, very old, or it is a tendency which cropped up locally in the mere vulgar dialects owing to some personal ignorance or idiosyncrasy only in the Indo-Iranian period, and in course of time died out at least in the Indo-Aryan. If this transposition is seen to be a tendency occurring also in most of the Indo-Germanic classical languages including Iranian and Indian we can stand on a surer ground in respect of the view that the transposition in this form of Prākṛt was nothing but a phenomenon inherent in the language itself from an older period.

BRUGMANN, in his *Kurze Grammatik* (p. 245 f) has dealt with metathesis elaborately. Along with other cases of metathesis he gives the following in connection with *-r*:—Lat. *tarpešita-tarpezita*; *corcōtārius-crocōtārius*; *intrepella-interpella*; *disciplina-displicina*; *latronium-latrocinium*. Germ. *birnen-brinnen*; *vulin-vürhten*; *beornam-frohtian*. Gk. 'Aphrodītā-Aphrodītē'; *porti-proti*; *kortaphos krótaphos*. Salv. *prase-parszas*; *vlēka-velkū*. Arm. *surb*-(Skt.) *śubhṛa*; *e-lbair*-(Lat.) *frater*. (Skt.) *bhrātar*. O. fr. *flaith*-(Goth) *valden*; *frass*-(Skt.) *varṣa*.

The author, moreover, divides the phenomenon of metathesis into three classes:—Regressive, Progressive and Reciprocal. When the sound concerned moves to a backward direction it is regressive; when to a forward direction it is progressive, and when there is a mutual displacement of two sounds it is reciprocal.

(1) Regressive—*kát-optron-kátropton*; *taphros-tráphos*; *pistinum-pristinum*; *tcatro-treato*.

(2) Progressive—*enkótraphos-krótaphos*; *trādo-tādro*; *crocodilus-cocodrillus*; *ciwaca-coacla*; *praesaepes-pesetre*.

(3) Reciprocal—*molibos-bolimos*; *aphrodītē-aphrotidā*; *silurus-sirulus*.

The following instances may be taken for a comparison of the eastern with the western languages:—Av. *capru*, Gk. *tru*, Lat. *quadru*, Gal. *petru*, Lith. *ketvirtas*. Aksl. *cetretz* beside OIA. *catvāra*, *catur*, Gk. *tétratos* = **tetphratos*. OIA. *hrumāti* besides *juhurat*, *hvarate*, Lith. *pazulnus*. OIA. *vruc*, Gk. *luk* beside OIA, *varcas*, Lat. *vocanus*; OIA. *śvaśrū-s*, Aksl. *svekry*, beside Skt. *śvaśuraś* MHG. *sibrūbe*, Lith. *skoverbiū*. The illustrations contain not only the same linguistic phenomenon but also a common stock of words which fact definitely proves that the tendency of transposition of *-r* in a word began so early that it may be said to have occurred in the Indo-Germanic stage itself. Here may be added the remark of BRUGMANN that already in the Indo-Germanic stage *ur* was changed to *ru* under certain conditions. Thus we see that the change in question was neither a local nor a late one as it had its root very deep as well as widely spread and in this respect the Avestan and the Vedic languages should be considered as parts organically connected with the whole and not isolated eastern languages exhibiting a local form of change.

Now, keeping the western languages out of our consideration let us see how in a number of common words this transposition took place in the Iranian and the Indian proving thereby that it was a feature of the languages which could not be utterly overlooked:

(1) Av. *aθrava* = Skt. *atharva*; Av. *caθrudasō* = Skt. *caturdaśa*; Av. *naffedriat* = Skt. *naptar*; Av. *brātū¹ryō* (for *brāturyō*) = Skt. *bhrātṛbkyas*.

(2) Av. *urvatem* = Skt. *vratam*; Av. *urvabo* = Skt. *√usr*, (Lat. *voltur*, Gk. *Wrētós*); Av. *urvaēsam* = Skt. *varṣa* (Gk. *roikos*); Av. *urvāzemma* = Skt. *vrādh*; Av. *dvara²ti* = Skt. *dravati*; Av. *θwarsta* = Skt. *tvaṣṭṛ*.

Coming to the Indo-Aryan itself we find a good number of instances in the cognate verbal forms which only increases the importance of the phenomenon in question :—

- √*sarj*—*sasarja*, *sarjana* but *sraṣtum*, *sraṣyati*;
- √*sarp*—*sasarpa*, *sarpaṇa* but *sraṣyati* (also *sarṣyati*), *sraṣtā*;
- √*vṛ*—*varitum*, *avarit* but *vriyat*, *vavratuh*;
- √*dhṛ*—*dharati*, *dharanam* but *dhriyate*, *dadhre*;
- √*hṛ*—*hṛt* but *hriṇāti*;
- √*dṛś*—*darsayati*, *darśana* but *draṣtum*, *adrākṣit*;
- √*bṛh*—*barhati*, *babarha* but *brahman*;
- √*dṛh*—*darhati*, *adarhit* but *druhyat*;
- √*mṛj*, √*mṛs*—*mamārja mārṣṭā*, but *mraṣṇa*;
- √*kṛś*—*karṣitvā*, *cakarṣa* but *krasiyah*, *kraśiman*;
- √*kr*—*akaram* but *akran*, *akrata*.

Other notable examples are—*praṣṭi* beside *parṣu*; *śvaśrū* beside *śvaśura*; *prathiyas* beside *pārtha*;

From what has been said above we get the following facts about which there cannot be any doubt :

- (1) The *-r* metathesis occurred in the various classical languages both western and eastern and therefore.
- (2) It can be taken to be as old as the primitive Idg. period and
- (3) Of all the cases of transposition that of *-r* was the most wide-spread, in which respect the Avestan and the Vedic languages are not exceptions.

Now, before discussing the subsequent history of this metathesis we shall give the various classes of transposition which were characteristic of the mediaeval dialects taking examples from classical languages as well as from its inscriptions.

(1) The first class may be taken to be that called by BRUGMANN regressive. Here the *-r* shifts from its position by giving up the conjunction with a following consonant, crosses over the preceding vowel and goes in conjunct with the consonant which preceded the vowel in its previous position (and which was generally the initial sound of the word e.g. *darśana*—*draṣṭavya*; *karṣitvā*—*kraśiman*; *dharma*—*dharma*, *pūrva*—*pruva*).

(2) The second class consists of BRUGMANN's progressive metathesis, but is purely consonantal i.e. the *-r* before an adjacent consonant goes after it. It is remarkable that instances of it do not occur either in Indo-Aryan or in the Iranian but in the Western languages; and these too, though similar, were not exactly identical—*cloaca*—*coacla*, *crocodilus*—*cocodrīlus*, *teatro*—*teatro* (Ital); *sarva*—*savra*, *artha*—*athra*.

(3) The third class is what BRUGMANN mentions as 'reciprocal'. It may also be called a case of mutual transference, for, in the first two classes there is really the shifting of one sound only, but here it concerns two sounds taking each other's place. We would have described it fully in connection with Middle Indo-Aryan if we called it the metathesis of mostly intervocal or single consonants with mutual displacement generally forming no conjunct. It is notable that the examples of this class are taken by BRUGMANN from Western languages and in the case of Indian from the mediaeval Indo-Aryan and not from old Indo-Aryan as in the last case this form of metathesis is rare: *reliquiae*—*leriquiae*; *sirūlus*—*silūrus*; MIA. *kareṇu*—*kaṇeru*; *hrade*—*daraha* (AMg. *draha*); *arāla*—*alāra*.

Now, coming to the later Indian languages we find that the first two are totally absent, but the third is in a growing condition so that in the Middle Indo-Aryan we get abundant examples of these in the various dialects including Pāli. That it was a growing phenomena

would at once be marked if the Prākṛts of the grammarians were compared with those of the Asokan inscriptions. It is, moreover, worth noticing that the examples given by GEIGER and PISCHEL almost invariably contain an -r, and the former actually remarks that the liquid -r is particularly susceptible to metathesis.

(1) Pali—*ālārīka* < *arālīka*; *kaṇeru* < *kareṇu*; *pāruṇa* < *prāvaraṇa*. Here GEIGER's other remark is important :—"Metathesis may take place after the insertion of a svara-bhakti vowel". This means that even if originally there was a conjunct of -r it was first dissolved in Pāli, and then the metathesis took place. This fact helps to prove clearly that the first two forms of transposition mentioned above having connection with some sort of conjunct ceased to exist in the Middle Indo-Aryan through the interference of an anaptyctic vowel. Thus—*kayirā* < **kariyā* < **karyā*; similarly *kayirati*, *payirupāsati*, *payirudāharati*; *rahada* < *harada* < *hrada* (AMg. *draha*) *acchera* < *āśacarya*. There are a few examples of metathesis which can be called progressive but that also is not the same as stated under (2) above as it is not purely consonantal :--*hirati* < **hiryate* < *hriyate*; similarly *bhīrati*, *pūrati*, *kirati* etc. It should also be noticed that this insertion of a vowel shows the inherent weakness of the sound -r which is preserved here only by making it intervocal.

(2) Prākṛt—*Alacapura*, *ūṇāla*, *kaṇeru*, *naḍāla* etc., *daha* (JM. AMg. *draha*), *dihara* (< *dirgha*), *pāhanāo* (< *upānahau*), *marahaṭṭa*, *rahassa* (< *hrasva*), *vānārasī*, *haliāra* (< *haritāla*), *halua* (< *laghuka*), *hulāi* beside *luhai*.

From the above it is proved that the regressive transposition of -r with a vowel, and forming thereby a conjunct (e.g. *darśana* < *draśana*) died out in the Old Indian period, and never came to the Middle Indo-Aryan; that the progressive transposition, of -r with a consonant, occurring in the Shahbazgarhi inscription and in the Avestan e.g. *sarva* > *savra*, *caturdaśa*—*caṭrudaso*, occurred neither in the old nor in the mediæval Indian; and that the transposition called reciprocal occurring abundantly in the Middle Indo-Aryan and being concerned with only intervocal consonants was either a new independent development in India, or an inheritance from dialects other than the Vedic but of the old Indo-Aryan period; at any rate it is something new in the history of Indo-Aryan proper.

We have discussed all these in detail to prove two points : first, the regressive transposition of -r with a vowel is not likely to be a scribal mistake as it has its parallel in the Western classical tongues, in the Avestan, and especially in the Old Indo-Aryan. The progressive conjunctive metathesis also was not unknown before. Second, considering solely from the point of view of Indo-Aryan philology, we must take this change as belonging to a time pre-historical and belonging to a place on the border of India and outside. It, therefore, pertains to the study of that state of the three languages, Iranian, Dardic and Indian, which had not yet developed their individual characteristics at least in this point.

Here we are concerned with the north-western dialects including the Dardic. The other two branches, viz. the Iranian and Indian have helped us much in ascertaining one of the features of the language. Now we shall examine the so-called north-western Prākṛts and see whether they render any help in the matter. The records of the north-western Prākṛts are the following :—(1) Kharoṣṭhī manuscript of the Dhammapada; (2) Prākṛt records of Niya; (3) Kharoṣṭhī Inscriptions; (4) the Khotan document of Endere; (5) Coins; (6) the modern Iranian and (7) the Dardic languages.

(1) Of these the language of the Prākṛt Dhammapada falls in the same class with that of the Asokan inscriptions in respect of -r metathesis as the following examples would show : *drugati* for *duragati*; *drumedhino* for *durmedhasaḥ*; *pravata* for *parvata*; **traka* for **cakra* or **taka*; *drigha* for *dirgha*; *drugha* for *durgāt*; *druraccha* for *dur-rakṣya*; *drunivārana* for *dur-nivāraṇa*; *drusīla* = *dauḥ-sīlya*; *drusīlo* for *duḥsīlaḥ*; *drukita* for *duṣkṛtaṃ*; *dru-pamucu* for *duṣpramucyam*. These undoubtedly show that the transposition could not be a matter of convenience or error on the part of the scribe, because the script, though the same in this document and the inscriptions could not cause the same difficulty both on rock and on paper. If it is argued that they had a convention of placing the -r after a consonant, the evidence of Niya Prākṛt and that of the Kharoṣṭhī inscriptions would prove to the contrary which have the -r preserved in the proper place,

(2) Of the Khotan documents, the one found at Endere (No. 661), was written in a different script and dialect from the rest, and most of its phonetic peculiarities reappear in the Dardic languages, particularly in the Torwali. From the evidence of Torwali, it might be assumed that they were forms like **drigha*, **druvala* in this dialect (as a palatal -*r* had changed the dentals into palatals), and so the vernacular has the forms *ñik*, *jūbal* (BSOS, VIII, p. 435—BURROW).

(3) Some instances of regressive -*r*-metathesis are met with in the coins of Western India e.g.—*dhrama*^o; *dramikasa*; *tratarasa*; *kramasa* etc.

(4) The evidence of the modern Dardic vernaculars is not without importance here though they are far removed from the early mediæval language in respect of time. GRIERSON writes (LSI, Vol. VIII, Pt. II, p. 9), "In the middle of the third century before our era the Emperor Asoka spread his rock inscriptions over the length and breadth of India. These inscriptions were written in the vernacular of his time and it need not surprise us that the one at Shahbazgarhi close to, if not actually in Dardic territory, contains many linguistic forms which are related to Dardic." In an article (JRS, 1904, p. 727) he compares the language of Shahbazgarhi with modern Dardic. There he shows that Shahbazgarhi *k*, *g*, *t*, *ṭ*, *b*, *st* + *r* are retained in the modern languages e.g. *kal*, *kṛe*, cf. Skt. *kroḍ*; *grōm*, Skt. *grām*; *treh*, Skt. *trī*; *pūtr*—Skt. *putra*; *istr*, Skt. *strī*; *Bāś. presya*, cf. Skt. *presita*; *bioh*, Skt. *bhrātar*. Then on p. 730 he makes this remark:—"Shahbazgarhi metathesis of -*r* in compounds (*dhrama*, *draśana*, *pruva*, *krama*, *śrava* etc.). So Skt. *karma* = Kal. *krō*; Skt. *parṇa* = Kal. *pron*; Skt. *karman* = *šinā*; *krom*; Skt. *dirghu* = kal. *driga*. A more extreme case is Av. *star* = *Bāś. rastā*. This will show that the Shahbazgarhi spellings are not necessarily "orthographic tatsamas" badly spelt. They represented a real pronunciation. "Any comment on this remark is unnecessary here.

(5) Metathesis of -*r* is not altogether unknown in modern Iranian: Av. *Suxra*, OP. *θuxra*, NP. *surx*, *Sir*, *Sirah*, *Siv*, Yazdi. *Surkuk*, Dig. Oss. *Surx*. Av. *vafra*, NP. *barf*, Gab. *Kāš. Māz. Gil. Sarq. carf*, Minj. *varfah*, Yidg. *varfuḥ*. Av. *asru*, NP. *ars*, Bal. *als*. Av. *xarana*, Phl. *kanār* NP. *kanār*, Av. *puora* NP. *pusar*, Yarn. *pulah*.

Had the remaining two dialects shown the same tendency to the -*r* metathesis our proposition would receive complete corroboration. But the Kharoṣṭhi and the Niya dialects do not transpose -*r*. (Kh., of course, has a form like *catrudasa*). But there is one point which these two dialects have in common with the others. It is retention of -*r* in a conjunct which may somewhat help us in the investigation of the point under consideration for it is a special feature of the Western Asokan to retain an -*r* in conjunct as the following cases could show:—stop + *r* = retained in SMG. in Indian Prākṛts the stop prevails; *v* + *r*—preserved in SM, but assimilation in others; sibilant + *r*—preserved in SM but assimilation in others etc.

(1) Niya Prākṛt—Comparing this dialect with Western Asokan BURROW states that there is a better preservation of conjunct consonants—especially -*r* (and -*s*) in the former,—*tr*, *rt* etc. *r* > *ri* is almost universal, while in the Asokan dialects -*r* has disappeared in a large proportion; -*r* + dental—better preserved in Niya; *r* + *ṣ*—preserved in Niya, but usually assimilated in the Asokan (also preserved with transposition of -*r*); *ly*, *lp* preserved in Niya, but assimilated in Asokan.

(2) Kharoṣṭhi Inscriptions—Sten KONOW remarks that -*r* is generally well preserved. Also in compounds -*r* shows great power of resistance, and this feature is said to be a marked characteristic of the dialect which distinguishes it from other Prākṛts and reminds us of modern Dardic. Some of the examples are—*rv*—usually preserved; *tr*—of frequent occurrence; *dra*—retained; *pra*—quite common; *br*, *bhr*—generally preserved. The -*r* is so strong a sound here that forms even like *Sra* for Skt. *Sa*; often *śr* is written for *ś*, *starva* for *sarva*, *srtva* for *satva* occur.

On this point again, the evidence of the Iranian and the Dardic may be taken into consideration.

(3) Iranian—In all the following combinations, *kr*, *ghr*, *tr*, *ntr*, *pr*, *ṛṇ*, *rt*, *rd*, *rn*, *rm*, *ry*, *rv*, *rṣ*, *rṣn* -*r* is assimilated to the adjoining consonant in the Indian Prakṛts thus being a sound weakest of all. But in the Iranian all these would be converted to -*rr* which fact shows how strong this sound was in that language.

(4) Dardic—GRIERSON, in *Linguistic Survey* remarks :—

"In India when -*r* originally preceded another consonant it is usually dropped; but in the Dardic languages and in Kāśmīrī the -*r* is usually retained, and if any consonant is dropped it is the second one." "In India a Sanskrit *tr* becomes *t*, but in the Dardic languages and in Kāśmīrī it may remain unchanged." In his article on "Conjunct consonants in Dardic" (BSOS VI, p. 36 f) he gives a comparative list of Sanskrit, Prakṛt and Dardic conjuncts. Some examples from these would well illustrate the statement :—Skt. *kr*, Pkt. *kk*, D. *kr*, *gr*; Skt. *gr*, Pkt. *gg*, D. *gr*, *gl*; Skt. *pr*, Pkt. *pp*, D. *pl*, *phl*; Skt. *br*, *bhr*, Pkt. *bb*, D. *br*, *bl*, *br*; Skt. *tr*, Pkt. *tt*, *ṭṭ*, D. *tr*, *ṭr*, (*t*, *ṭhl*, *ṭl*, *hl*) etc. (*dr*—is an exception); Skt. *ntr*, Pkt. *nt*, D. *ntr*, *ndr*; Skt. *rt*, Pkt. *tt*, *ṭṭ*, D. *ṛ*, *r*; Skt. *rd*; Pkt. *ḍḍ*, *d*, D. *rd*, *ṛ* (also *d*); Skt. *ṛṇ*, Pkt. *ṛṇ*, D. -*r*, *ś* (also *n*); *lj* D. *l*; Skt. *lw*, Pkt. *dd*, D. *l*, (also *jj*); Skt. *rv*, Pkt. *vv*, D. *r*; Skt. *str*, Pkt. *sth*, D. *str*, *tr*, *hl*, etc. Skt. *śr* Pkt. *ss*, D. *sr* etc.; Skt. *sr*, D. *sr*. In this table GRIERSON also gives the "Western Prakṛt" forms (*i.e.* forms occurring in the Kharoṣṭhī inscription edited by KONOW) side by side with these given above. We mention these here in the same order as in the Dardic examples :—Western Prakṛt—*kr*, *gr*, *pr*, *br*, *ṭr*, *dr*, *rt*, *rd*, *rv* (all these are retained). (See under (2) above). From the two lists given above we find that the north-western dialect of the Asokan inscriptions had two features in respect of -*r* each in common with a number of local languages; they are (1) the shifting the position of -*r* (first list), and (2) the retention of -*r* in conjuncts (second list). There is a third tendency which is met with sporadically in the other western dialects but in very many cases in the Asokan and Dhammapada. It is the assimilation of -*r* with the adjoining sound. Taking these three features under two heads we shall try to find out the conditions under which -*r* was retained in tact in its original position and under which it was assimilated altogether or preserved with the help of transposition.

The cases of the retention of -*r* in the Asokan inscriptions may be divided into two classes :—(1) *r* + consonant, and (2) consonant + *r*. Shahbazgarhi—(1) *rt* > *t*, *t*, *tr*; *rth* > *th*, *thra*, *ṛdh* > *dh*; *a-rbh* > *rabh*; *a-rm* > *ram*; *ry* > *y*, *riy*; *u-rv* > *ruv*; (*rv* > *v*); *a-rś* > *raś*, *ś*; *a-rṣ* > *raṣ*, *ṣ*; *rṣy* > *ṣ*; *lp* > *p*; *ly* > *l*. Mansehrā—*br* > *b*; *vr* > *v*; *bhr* > *bh*; *rg* > *g*; *rt* > *t*; *a-rth* > *rath*; *ly* > *y*; *vy* > *v*. Girnar—*bhr* > *bh*; *mṛ* > *ṇb*; in *rg*, *ṛgh*, *ṛṇ*, *rt*, *rth*, *rd*, *rdh*, *rbh*, *rm*, *ry*, *lp*, *ly* the -*r* or -*l* is found to be assimilated; *u-rv* > *ruv*; *rv* > *v*; *a-rś* > *raś* (*arś*), *ś*; *rṣ* > *ṣ*, *s*. (2) (a), Initial—Dental + *r* = generally preserved in SG, labial + *r* = preserved in SG, in others only the labial remains. Sibilant + *r* = preserved in SMG, other versions retain only the sibilant. (b) medial—stop + *r* = Preserved in SMG, in others the stop prevails; *v* + *r* = preserved in SM, assimilation in others. Sibilant + *r* = preserved in SM, in others assimilation. (See A comparative grammar of Aśokan inscriptions, M. A. MEHENDALE, *Deccan College Bulletin* Vol. III, No. 3, pp. 270 f, 280 f.).

All these examples, taken in a general way, yield to a law which might be formulated thus :—When an -*r* in conjunct succeeded a consonant it was retained in pronunciation, but when it preceded a consonant, and at the same time followed a vowel it was in some cases assimilated and in others it was shifted either backwards to follow a consonant and precede the adjoining vowel, or it was moved forward to come after the consonant which originally followed it. In both of the latter two cases -*r* was made to form a conjunct of which it became the second member and never the first in which position it retained, it disappeared through assimilation.

The formula may be put thus.—C = consonant and V = Vowel and R = -*r*. In the case of Consonant + *r* we have (a) Initial—CRV.... retained; (b) Medial....CRV.... retained. And in the case of *r* + Consonant we have (only medial)....CVRC₁V₁... > (a) ...CRVC₁V₁... (b) ...CVC₁RV₁... (c) ...CVC₁V₁... :

The -r Conjuncts in the Prākṛt Dhammapada come under this general rule. (1) $r + \text{Consonant} = rg > g; rm > m; rv > v; ry > riy$ etc. Examples of the preservation of -r by transposition have been given above. (2) Consonant + r = kr, gr, tr, dr, pr, br , etc. are all retained.

Of the two dialects, Niya and (later) Kharoṣṭhī the latter shows some tendency to assimilation in cases of $r + \text{consonant}$: $rd > d; rdh > dh; rm > m; rv > v, mv; rś > ś$ (also $pra > p$) “-r seems to have been weakly sounded and to have had a tendency to coalesce with dh to qh” (KONOW cvi).

From the foregoing sets of examples we get the following facts:—(1) In the Western dialects -r was in general, a very strong sound, having a great resisting power against assimilation; (2) In the Iranian it was so strong that in the later forms of dialects it made all other sounds merge into it if there was a conjunct so that the combination became -rr, and in metathesis it often came before a consonant instead of going after it as was the case in the Indo-Aryan. (3) In the Languages of Niya and (later) Kharoṣṭhī inscriptions -r did not lose its existence by being assimilated in either of the two positions: $r + \text{consonant}$ and consonant + r. But the latter extending upto the 3rd century A.C. showed some signs of weakness. (4) The Aśokan inscriptions and the Dhammapada show an -r which was still weaker, as this sound when in a previous position in a conjunct could hardly maintain its existence without being shifted to the subsequent position.

Thus we can, roughly, make a gradation of the sound -r according to its strength if the question of time is not taken too seriously:—(1) Iranian, (2) Niya, (3) Later Kharoṣṭhī, (4) North-western Aśokan inscriptions and Prākṛt Dhammapada.

MACDONELL (ref. to WACKERNAGEL I § 192 b), in his *Vedic Grammar* (p. 44 § 52 a), divides the Vedic language into two classes with reference to -r and -l. We may, here also, take for granted two main divisions of Indo-Iranian behaving differently in respect of -r. In the first the -r sound was very strong and did not yield to decay easily; this included the Iranian and the dialects of the north-west including some of the dialects of the Vedic. In the second, the -r sound was very weak (perhaps the weakest of all sounds, cf. gradation of consonants in respect of strength—(1) Stop, nasal, l, s, v, y, (r), and soon fell victim to assimilation and used to disappear in connection with almost every sound unless separated by a svarabhakti vowel. This includes the dialects of India proper. May we not connect the two modes of divisions of the Indo-Iranian language, viz, that from the view-point of the prevalence of -r (total, as in Iranian, and to a very great proportion, as in the Vedic) as against -l made previously and from the view-point of the retention of -r in conjuncts (either in the original position or by means of transposition) as against its disappearance through assimilation? We may say in other words that the dialects which had only -r, and no -l, or had the -r in an overwhelming proportion in comparison with -l had a strong element of the former sound and therefore retained it; and the dialects which yielded an increasing number of -l in place of -r had a weaker element of the latter sound and easily began to allow its assimilation with other consonant.

The first class may be subdivided further: (1) the dialects which had an -r more strongly pronounced and, therefore, persisting, as in the Iranian tongues, fading partially but in a much later period; (2) the dialects which had an -r of weaker articulation than that in the first, but surely much more strongly pronounced than in the regular Indian dialects. Here the -r began to be assimilated earlier being sometimes retained by transposition.

It is almost impossible to ascertain the areas originally occupied by the different dialects but this much can perhaps be said that of the first class, the first branch contained the Iranian proper, and the second the Dardic, the mother dialects of Shahbazgarhi and Mansehra and the dialect of the Dhammapada (if the first does not include the other two). When the speakers of the latter dialects found that the -r was tending to disappear but was too strong to do away with it (because of its inherent quality or due to the influence of the neighbouring Iranian) they adopted a path via media, i.e., they did not drop it altogether but at the same time did not keep it at the place in common with both the retaining and dropping

dialects. As it was tending to fade they made it more pronounced and clear by connecting it with a preceding consonant, as *-r* becomes more prominent and clear if articulated after a consonant than before it. (e.g. *dhrama*, *savra* and *dharma*, *sarva*). As such *-r* seems to have been a rolled sound in the utterance of which a free movement could be given to the tongue if there was no following consonant to be uttered. The trill in the Iranian was strong enough to retain *-r* in its original place and moreover, to convert other sounds into it. In the dialects of the border land the existence of *-r* with a trill was maintained to some extent by means of transposition. In the dialects of India the trill, if at all, had disappeared long ago, and *-r* was lost through assimilation at a very early period.

Thus it is seen that the question of *-r* is rather complicated in the western dialects. It cannot be disposed of so easily as BÜHLER and HULTZSCH had done. At any rate, the transposition of *-r* in these languages should be treated as a linguistic point and not as an orthographic one. GRIERSON had hinted at it long ago, much before the edition of HULTZSCH was published; but as in this edition no reference to GRIERSON is to be found, it seems either HULTZSCH had not seen his article or he had ignored its significance. We entirely agree with GRIERSON, but as his examples are drawn only from modern vernaculars which are far-removed from the inscriptions in point of time we have taken up here mainly the older languages to prove the contention of the eminent linguist. It is for the readers to judge the amount of our success.

Now, all that has been said in this paper pertains mainly to the Shahbazgarhi and the Maneshra dialects and nothing has hitherto been said about the Girmar version where also this transposition occurs. In the two former versions the so-called orthographic disorder concerns only *-r* but here, in addition to this we find those of *tp*, *vy* and *st*. *vy* for *vy* may be explained as a linguistic phenomenon as in old manuscripts we often find a weak *y* before a consonant (which, of course, may not be as early as the inscription). About the other two, *tp*, *st* no explanation other than orthographic can be given. But as the transposition of *-r* is in common to the North-western versions it cannot be said to have fallen it to the same line with others. It is needless to deal with this point here in detail, and suffice it to say that as there is a prevailing tendency of *-r* in the Dardic, so also to some extent in Lahndā, Sindhi and Western Pāhārī (BSOS vi, GRIERSON p. 356; viii KONOW p. 608). Now, if the middle Indian languages had some tendency to preserve *-r* like the Dardic they must have had the same necessity of retaining by transposition. If upto the Sindhi area this was the tendency it is not difficult to assume that the local old Prākṛit of Girmar had imbibed it to some proportion from the neighbouring languages. It may there be a case of external influence from the north.

Before concluding we shall make a passing remark on the relation of Paisācī Prākṛt with the Dardic in respect of the *-r* sound in conjunct. We have examined all the lists of examples given by GRIERSON (in his article, "Paisācī, Pisācas and modern Pisāca," Z.D.M.G. 1912 p. 49 f) from the various Prākṛt grammars, and found that there is not a single instance in which an *-r* in conjunct is not either assimilated or separated by an anaptyctic vowel. Thus the Paisācī of the grammarians shows no sign of the retention of *-r* either by virtue of its own strength (as in Niya and later Kharoṣṭhī) or by some artificial means, such as, transposition (as in the dialects of the Asokan inscription and Dhammapada). One might argue that this Paisācī represents a stage much later than the languages of the inscriptions and documents and by that time the *-r* had disappeared. But the evidence of modern Dardic, Lahndā and western Pāhārī forms a great block on the way as it is well known that these languages generally or partially retain an *-r*. If the older and later forms of a language show the same feature of retaining an *-r*, how is it that the middle form does not possess it? The only inference would be that the Paisācī Prākṛt as described by the grammarians was not a proper Dardic language in which *-r* was definitely a strong and persisting sound, nor was it connected with the languages of Niya documents and Kharoṣṭhī inscriptions in which *-r* had "a great resisting power." The matter is complicated in the borderland of India owing to the inter-influences exerted by the Iranian, Dardic and Indian and therefore it is difficult to arrive at any definite conclusion, but at any rate, the sound *-r* is so cons-

picuous here that it can be well taken as a good criterion for the purpose of the classification of dialects. The main principle or formula which we should always adopt here is that a language, if it is Dardic, must possess a strong element of -r; if a mediæval dialect does not fulfil this condition it must be placed outside the Dardic area. From this point of view, the Paiśāci of the grammarians which drops -r altogether seems to belong to a tract to the East of the borderland and not to the West.

May we connect the Paiśāci with the dialects of Shahbazgarhi and Mansehrā? By the 3rd century before Christ these dialects had managed to drop -r to a great extent (though not of course, in the same proportion as the Indian dialects). So that by the time of grammarians like Vararuci and others they had done away with it totally. This is a question which is out of place here, but the point we can remember is that the dialects of the north-western Aśokan inscriptions and the Paiśāci might have belonged to a group which could not be at once said to be Dardic though the Aśokan was considerably influenced by it.

SAINT RĀMADĀSA'S DISCOURSE ON THE WRITING AND PRESERVATION OF MANUSCRIPTS AND ITS IMPORTANCE FOR THE HISTORY OF INDIAN PALEOGRAPHY.

By P. K. GODE, Poona.

Some of the best manuscripts now preserved in the Government Manuscript Library at the B. O. R. Institute, Poona, were written hundreds of years ago by Jaina Scribes, who were masters of the art of writing. The importance attached to manuscripts by the Jaina religion was evidently responsible for the production and preservation of these beautiful MSS. These specimens of neat, uniform and beautiful handwriting create an impression that the art of writing was not given so much attention in the Mahārāṣṭra¹ as that given to it in Gujarat² and other places where Jaina religion dominated during the mediæval period of Indian history. It appears, however, that the art of good writing was not altogether neglected by the people of the Mahārāṣṭra as will be seen from some MSS available at the B. O. R. Institute and elsewhere. The question now arises whether any instructions regarding the art of writing and preservation of MSS as current in the Mahārāṣṭra have been found incidentally recorded in the literature of the period prior to the advent of the English in the Mahārāṣṭra. I have not searched for such information throughout the available Marathi texts, published and unpublished but the following discourse from Saint Rāmadāsa's *magnum opus* called the *Dāsabodha*, though known to every educated reader of Mahārāṣṭra appears to be unknown to people outside this province and it is for their benefit that I give here a rendering of it for scholars interested in the history of the art of writing and preservation of MSS as current in the different regions of India during the different periods of history³.

1. It appears that the introduction of litho-press in Mahārāṣṭra had a healthy effect on calligraphy. At any rate, many of the works printed by the litho-printing process show remarkable neatness, uniformity, and beauty of handwriting. I have before me the litho-copy of the Marathi translation of Grant DUFF'S *History of the Marathas* published in 1830. It contains more than 450 pages (7 inches × 12 inches) written very elegantly throughout. This hand-writing in Devanāgarī characters compares very favourably with the neat and beautiful calligraphy of many voluminous MSS written by Jain scribes.

2. Compare the *Lekhapaddhali* (ed. by DALAL and SHRIGONDEKAR, G. O. S. Baroda, 1925). This letter-writer recording forms of letter-writing etc. comes from Gujarat. It is based on MS A (16th cent.); MS B (A. D. 1480); MS C (A. D. 1477) and MS D (16th cent.).

3. In Appendix V to *Lekhapaddhali* (G.O.S. 1925) the editors have recorded some extracts regarding the लेखक or scribe from the *Matsyapurāṇa*, the *Garuḍapurāṇa*, the *Sarīgadharapaddhati* and the *Patrakaumudī*. The extracts about the लेखनी or pen and the मयी or ink are not accompanied with the names of the sources from which they have been recorded. It is necessary to collect more literary evidence on these topics with a view to account for the great production

The Discourse of Saint Rāmadāsa (A. D. 1608-1632) referred to above is called *Lekhana-nirūpaṇa* (*Dāsabodha*, *Daśaka XIX*, *Samāsa 1*) and reads as follows :—

“A Brahmin should study the art of writing in Devanāgarī characters (*bālābodha*) in such a manner that connoisseurs of this art are pleased to have a look at his beautiful handwriting. The ink to be used for writing should be the best of its kind prepared from lamp-black. The characters should be written in a straight line and should be round in form but not too close to each other. The lines so written should be glossy black in appearance, standing close to each other, so much so that they should look like strings of pearls. Every letter should be clearly written. It should be of normal size. The downward strokes attached to letters, the oblique strokes, and also the curved marks above them should be neatly written. The handwriting should present such a uniform appearance that the MS may appear to have been written with one and the same pen from start to finish. The blackness of letters, the thickness of the writing point and in the same manner the turning and curvature of letters should be uniform. No two lines should touch each other; the oblique strokes above the line should not cross the curved ones. The upper line should not touch the lower one and the letters should not be elongated. The leaf should be ruled with lead and the writing should be confined to these lead lines in a regulated manner. The distance between the lines should neither be too long nor too short. The writing should not be hindered by corrections; it should be free from errors and the scribe should not be guilty of negligence.

Those of young age have greater reason to write very carefully so that the readers should not get confounded. The writing should be of the middling variety because one can read very small characters in one's young age but not so in old age. There should be sufficient margin on all sides of the written matter, which should be a splendid performance. Even when the paper is decayed on all sides the writing should remain in tact.

In this manner a manuscript should be written very carefully. Such a manuscript becomes an object of envy to all persons, in whom a feeling of curiosity to see the writer of the manuscript is necessarily aroused. This physical frame of ours needs to be subjected to all sorts of hardships, if we are to attain extra-ordinary fame by our work, which should develop in others a special taste for it.

Thick papers should be procured and they should be properly and carefully dipped in alum-water. All sorts of writing materials should be ready at hand. Knives, scissors, margin-boards, alum, large polishing cowrie, and the instrument for applying alum to the paper—all such accessories of beautiful colours should be procured. Reeds should be brought from different places and such of them as are thick, small and straight should be selected. Articles of various colours should be obtained. Pens with different points should be prepared from the reeds) capable of producing different lines and figures. Round pieces of lead of different colours as also vermilion should be kept in stock. Dried lac-dye should be obtained by careful selection and pieces of rags soaked in ink should be dried—in this way different kinds of ink should be kept in stock. The last leaf of the manuscript should contain the words “इतिश्री.” The

of MSS on *birch-bark*, *palm-leaves* and *paper*, which now fills our MSS libraries. The formula for ink to be used to write on palm-leaves (ताडपत्र) is given as follows :—

“सहवर मृङ्ग त्रिफला कासीसं लोहमेव नीली च ।

समकञ्जलबोलयुता भवति मषी ताडपत्राणाम् ”

For making the ink durable the following formula is given :—

“खांड बोल अनङ्ग लङ्ग्वारस कञ्जल बञ्जल अनङ्ग त्रम्बारस ।

भोजराज मिसि निपाह पानउं फाटइ मिसि नवि जाइ ॥

बोलस्य द्विगुणो गुन्दो गुन्दस्य द्विगुणा मषी ।

मर्दयेयामयुगं तु मषी वज्रसमा भवेत् ॥ ”

The formula for ink to be used for writing *marginal notes* is as follows :—

“मष्यर्धे क्षिपेद्गुन्दं गुन्दार्धे बोलमेव च ।

लाक्षाबीभरसेनोच्चे मर्दयेत्ताम्रभाजने ॥ ”

manuscripts should be provided with boards of imported wood (बंदरी फळ्या). These boards should be polished and decorated with beautiful pictures in different colours. The manuscripts should be tied up with twisted cords and covered with various cloth wrappers as also pieces of red wax-cloth. All manuscripts should then be kept secure in boxes under lock and key".

I have tried in the foregoing lines to give the reader a fair idea of the contents of the original discourse without leaving the moorings of the text but at the same time making it sufficiently readable and easy of understanding. This discourse composed about 300 years ago shows in an admirable manner not only the shrewdness and practical nature of Saint Rāmadāsa but his highest regard for manuscripts, which have been the repositories of our ancient heritage since the art of writing came into vogue. It also gives us the details of the manner in which MSS were written in the 17th century and the materials used for the writing and preservation of all MSS.

MISCELLANEA

THE DATE OF KING BHASKARA RAVI OF KERALA

A Reply

I. Previous Discussion

Mr. K. N. DANIEL's article 'The Date of Parkara Iravi Varmar' appearing in *New Indian Antiquary* for April-May 1944 (Vol. VII, Nos. 1 & 2) is a reply to my article 'The Date of Bhaskara Ravi Varman (A Rejoinder)' published fifteen years ago (in January 1929) in the now defunct *Indian Antiquary*, London. (Vol. LVIII, 1929, pp. 21-27), embodying my observations on Mr. K. G. SANKAR's article on the same subject in the issue of that journal for August 1927 (Vol. LVI, pp. 141-43), and on Mr. DANIEL's article on the Malabar Christian copper-plate granted to Iravi Kortan by King Vira Raghava, published some time before in *The Indian Antiquary* itself. My *Rejoinder* contained also a summary of a controversy on Bhaskara Ravi's date, conducted in 1926-27 between myself and Messrs. DANIEL and SANKAR for nearly a year in the columns of two Travancore news-papers, one in Malayalana (since defunct) and the other in English. (Bhaskara Ravi is the Sanskrit form of the Tamil name Parkara Iravi.)

II. My Dates

May I invite the kind attention of scholars to my *Rejoinder* mentioned above? In it I suggested dates as follows :—

Date (A. D.)	Regnal year	Event
1031		Birth
1047	1st ...	Accession
1048	2nd ...	Coronation
1060	14th (2+12) ...	Perunna inscription engraved
1085	38th (2+36) ...	Jewish plates granted.
1105	43rd (wrong) ...	Tirunelli plate No. 2 engraved
1105 or after	————— ...	Death

I think that there was only one Bhaskara Ravi during the period covered by the Bhaskara Ravi inscriptions. Mr. DANIEL thinks there were two.

III. Language & Palaeography

The following remark of mine in my *Rejoinder* of 1921 bears repetition : "Mr. DANIEL has thrown overboard all considerations of the language and palaeography of the Bhaskara Ravi inscriptions. That is a serious mistake. In ascertaining the date of a genuine inscription the proper course, adopted by the generality of scholars, is to consider its linguistic and palaeographic aspects first. For, if the record is not spurious, there is no possibility at all of its being engraved in language and characters different from those of the actual time of writing. Whereas astronomical details mentioned in it may go wrong in some particular or other."

"Yet Mr. DANIEL has preferred astronomical evidence to linguistic and palaeographic".....

May I request competent scholars to publish in *New Indian Antiquary* their opinion as to the linguistic and palaeographic age of the B. R. inscriptions after comparing them with other Malabar inscriptions of various periods? To me the B. R. inscriptions appear to be of about 1070 A.D. (1031 to 1105 or after), while Mr. DANIEL takes them back to about 550 A.D. (518 to 587).

As there is a difference, not of one or two centuries, between our estimates, but of five or six centuries, the difference in language and palaeography will be quite conspicuous. *This has to be ascertained* before one can accept the sixth century.

IV. The Jewish Song

I found the song about Joseph "Rabhān" in peculiarly Jewish Malayalam in two old, decaying MS books (one of blue paper, and the other of grey paper), that I got from Maṭṭānchéri were

ari vetere āṇṭa vere,

the second ṛ alone being harsh ṇ (Malayalam). But the MSS. mentioned by Mr. Daniel also have

ari - - - are (or āre),

the second ṛ alone being harsh. Short a is usually lengthened in singing, and very often written in the MSS. as long ā.

Common to both readings there are a, r, v, t, and ṛ (*i. e.* Hebrew aleph, resh, vau, tau, and resh), and the word āṇṭa indicating the year. It has also to be pointed out that in old Malayalam both āṇṭa and āṇṭu were written with a final short a, and were construed as an adjective or a noun respectively (with two different meanings) according to the context.

The Jewish chronogram can, therefore, in either case, be interpreted so as to yield "the 6th day of the month Iyar of the Hebrew year 4846, corresponding to A.D. 1085", as I have suggested in my *Rejoinder* of 1929.

V. Jewish Year.

Mr. DANIEL takes 3600 as the Kali year. But we cannot expect that era in a purely Jewish record or song in Hebrew or Malayalam. In such documents the Jews use 'the era of the World, or *Annus Mundi*'. It has to be observed also that *Kali* is not indicated in the wording of the chronogram. The Hebrew era need not be specified in particular in such a Jewish song about a Jew, meant only for Jews.

POSTSCRIPT

Here is a translation of certain passages from an article in Malayalam on the Jews of Kerala on pp. 19-24 of *Mitavādi* Annual for 1926, Calicut, Malabar.

'About ten thousand Jews came under the leadership of Joseph Rabban (of the copper-plate), and the majority settled down in Cranganore. The Perumal (*i. e.* King Bhaskara Ravi) gave to Rabban the title Sri Ānandan' (which means he who exults in prosperity, or he in whom the goddess of prosperity delights).

[P. 20, col. 2] "For thirteen generations the family of Joseph Rabban lived in Cranganore with all power. In the thirteenth generation there were in this family only two brothers with the house-name Loossa. By this time the Portuguese had begun to come to India for trade. With their help the younger Loosa, a clever man eager for power, defeated the elder brother in a fight and drove him from Cranganore. What happened at last was that the Portuguese murdered the younger Loosa and took possession of Cranganore. The vanquished leader of the Jews came to Cochin and took refuge with the king of that place. After this the Portuguese, through religious spite, began to persecute the Cranganore Jews violently, and so in a short time [P. 21] they had to follow their leader to Cochin. It was in this manner that the Jews left Cranganore."

Since the Jews as a nation are very particular about keeping their family pedigree ever fresh in their minds, we may depend upon the number 13 given above. So 13 generations from Joseph Rabban, the contemporary of King Bhaskara Ravi, bring us down to 1498 A.D., the year in which the Portuguese came to Malabar. 13 generations cover 325-430 years, roughly. So Bhaskara Ravi and Joseph Rabban flourished in about 1068 or 1173 A.D., and not in the 6th cent.

Mr. Daniel does not say whether the Hebrew books mentioned in his article give any circumstantial details about Joseph Rabban, in addition to the years recorded therein. In

modern, or recent, records and traditions of all peoples of Kerala we find an increasingly unfortunate tendency, probably quite natural, but not excusable, to exaggerate their antiquity, and communal status, prowess, glory, &c. so much so that the scrutiny by others, of more ancient, or contemporary documents is resented by every community.

Incidentally it may be pointed out that the local Hebrew books mentioned above, give the dates in *Anno Mundi*, and not in the Kali era. So also the Jewish song about Joseph Rabban must be expected to give the date in *Anno Mundi*.

Trivandrum

T. K. JOSEPH.

THE AUTHORSHIP OF THE SETUBANDHA.

[Communicated by Dr. BABURAM SAKSENA]

The *Setubandha* (or the *Rāmasetu*,¹ or the *Rāvaṇavaho*)² is the first and the most elaborately finished *Mahākavya* in *Mahārāṣṭrī Prakṛta*. Daṇḍin pays an exquisite tribute to it in the *Kāvyaadarśa*³ and it is considered to be such an excellent piece of art by all Pandits that the ascription of its authorship to ancient India's master-artist, Kālidāsa has never been questioned seriously. But is Kālidāsa the author of the *Setubandha* ?

The *Setubandha* itself maintains reticence about its authorship. In such circumstances we have to depend upon the external evidence :

1. Bāṇa in his *Harṣa Carita* says of Pravarasena :

कीर्तिः प्रवरसेनस्य प्रयाता कुमुदोज्ज्वला,
सागरस्य परं पारं कपिसेनेव सेतुना ॥

This definitely speaks of Pravarasena and makes no mention of Kālidāsa in this connection. Had Kālidāsa any thing to do with this work, Bāṇa would not have failed to mention him here. Mere dedication cannot raise Pravarasena so much in the eyes of Bāṇa as to deserve this high tribute.

2. Kṣemendra in his *Aucityavṛttacaricā*⁴ quotes the 2nd verse of the 1st canto of the *Setubandha* and ascribes it to Pravarasena,

जलाशयस्यान्तगाढमागम-
लब्धरन्ध्रं गिरिचैर्यवृत्त्या ।
लोकेष्वलं कान्तमपूर्वसेतुं
बबन्ध कीर्त्या सह कुन्तलेशः ॥

These evidences leave no ground to ascribe the authorship of the *Setubandha* to Kālidāsa, or to any one else. Mention of Kālidāsa is, however, found in some of the Colophons. The evidence of the Colophons, however, is not unanimous in this respect as the following chart will show :

1. The *Alwar Catalogue* mentions this name. Rāmadāsa Bhūpati also mentions this name in the introductory verses of his commentary.

2. Edited by Siegfried GOLDSCHMIDT, 1880-4.

3. महाराष्ट्रभ्रयां भाषां प्रकृष्टं प्राकृतं विदुः

सागरः सूक्तिरत्नानां सेतुबन्धादि यन्मयम् ॥ I. 34.

4. Chapter I.

Editions of the <i>Setubandha</i>	इअ सिरि पवरसेण विरइए कालिदासकए Vide Colophons of	इअ सिरि पवरसेण विरइए Vide Colophons of	Authorship not mentioned in Colophons of
By Sivadatta and Kasinatha in Kāvya mālā Series	Cantos III to XV	Cantos I and II	
By Siegfried GOLDSCHMIDT	Cantos II, III and XV	Cantos I, IV, VI, VIII, XII and XIV	Cantos V, VII, XI and XIII

Thus at the end of the Cantos I and II of the *Setubandha* of the *Kāvyamālā* edition, the colophon is 'इअ सिरि पवरसेण विरइए', but at the end of the remaining cantos the colophon is 'इअ सिरि पवरसेण विरइए कालिदासकए', etc. The colophons are not at all similar to those of the *Rāvaṇavaho* published by Siegfried GOLD-SCHMIDT wherein 'इअ सिरि पवरसेण विरइए' is found in the Colophons of Cantos I, IV, VI, VIII, IX, XII and XIV and 'इअ सिरि पवरसेण विरइए कालिदासकए' in those of Cantos II, III and XV. There is no mention of any author at the end of Cantos V, VII, XI and XIII. Only these two books mention Kālidāsa's name in the colophon. There are a few MSS. of the *Setubandha* which have only Pravarasena as the author. Thus the MS of the *Setubandha Vyākhyā* by Śrī Kṛṣṇa vipra⁵ expressly mentions Pravarasena as the author in the introduction and the colophon at the end of the work. The MSS. of the *Setubandha vyākhyā*⁶ named Rāmadṛṣṭi mentions only Pravarasena as the author in the colophon. The ms.⁷ of the work in the Oriental Institute of Baroda mentions Pravarasena alone as its author at the end of each Canto in colophons which are in verses.

These colophons, differing from copy to copy, indicate that they are not from the pen of the author of the *Setubandha*. They are later additions as desired by copyists and commentators. If a few of them mention the name of Kālidāsa together with Pravarasena there is a larger number of such mss. as attribute its authorship to Pravarasena only.

It is very probable that some Kālidāsa was the scribe of Pravarasena and he copied it for being presented to the great scholars of the time. 'It has been pointed out by Mm. V. V. MIKASHI that the Pattan plates of Pravarasena II (year 27) refer to a Kālidāsa as the writer of the Charter.'⁸

Rāmadāsa-bhūpati, a commentator of the *Setubandha* is the originator of the view that Kālidāsa was the author of the *Setubandha*. While introducing his commentary he says :

धीराणां काव्य चर्चा चतुरिम विधये विक्रमादित्य वाचा ।

यं चके कालिदासः कवि कुमुदविधुः सेतुनाम प्रबन्धम् ॥

He further adds : इह तावन्महाराज प्रवरसेन निमित्तं महाराजाधिराज विक्रमादित्येनाज्ञप्तो निखिल-कविचक्रचूडामणिः कालिदास महाशयः सेतुबन्ध प्रबन्धं चिकीर्षुर्निर्विघ्नसमाप्त्यर्थं.....मंगलमाचरन्नाह ।

Rāmadāsa commented upon the work in V. S. 1652 (1595 A. D. His view regarding the authorship is worth little credence when we see that he is not supported but contradicted by earlier records to that effect. He might have been influenced by the ill-founded tradition which is based on the records of the *Kuntaleśvaradautya*. According to Kṣemendra *Kuntaleśvaradautya* is the work of Kālidāsa who himself visited Pravarasena as a messenger from Vikramāditya. This intimacy of Pravarasena with Kālidāsa might have been the root cause of the rumour regarding the *Setubandha* viz. (a) that it was the work of Kālidāsa or (b) that it was the product of joint authorship or (c) that Kālidāsa rendered help to Pravarasena in its composition. Those who uphold the last two views quote the following stanza of the *Setubandha* in support of their assertion :—

अहिणवराभारदा चुककूवल्लिएसुविहडिअ परिद्विआ

मेत्तिव—पमुहरसिआ गिण्वोडुं होइ दुकरं कव्व कहा ॥ I. 9

5. Mss. R. Nò. 15693 and 3226 in the Govt. Oriental Mss. Library. Madras.

6. *Ibid.* R. No. 5134.

7. No. 5561.

8. *Political History* of H. C. ROY CHAUDHURI, P. 475 Fn. Ed. 1938.

There is nothing in this verse to show that the author of the poem needed help in its composition. All that can be inferred is that many corrections and emendations followed the composition. There is no reason to believe that these corrections owe their origin to Kālidāsa. It is quite common with the authors that they introduce changes and corrections in their texts.

Nowhere in Kālidāsa's writings do we find that command over *Prākṛta* which would have enabled him to help the great poet who was writing a *Mahākāvya*. As the author of a *Mahākāvya*, Pravarasena must have been a great poet not needing any help from others. Mⁿ. MIRASHI, a supporter⁹ of the view that Kālidāsa rendered some help in the composition of the *Setubandha*, has not been able to point out similarities of thought between Kālidāsa and Pravarasena except in one stanza.¹⁰ He frankly admits that it is difficult to point out other stanzas in the *Setubandha* inspired with the ideals of Kālidāsa.

The style of the author of the *Setubandha* is very different from that of Kālidāsa in thought, language and metre. Some of the distinguishing features as met with in the *Setubandha* are illustrated below.

Pravarasena in the following verse imagines that mountains, hidden in the bed of ocean, are flying away from fear of being caught by monkeys. But the monkeys hastily catch them by their wings.

दर घडिअसेउबन्धा उपइऊण पवआ समुहुप्पइए
कडुन्ति जमलकरअलसंदाणिअ वक्खसंपुडधरणिहरे ॥ VIII. 37

The author of the *Setubandha* is fond of long compounds. Only two long compounds form the two lines of the following stanza :

पक्खपरिरक्खणुद्धिअ सरणिवाहाअ दिसा पइण महिहरं ।
फुडिअ जल मज्झ गिगअ फुडरअणु उज्जोअ संधि डम्भइ विवरं ॥ V. 86.

There are many stanzas in the *Setubandha* quite eminent for pun on words, a literary stratagem which was cultivated on larger scale by Bhaṭṭi, Bhāravi and Māgha.

The metres in the *Setubandha* are not classical. Of 1290 stanzas in the poem 1246 are composed in Āryāgiti and the remaining in Galitaka metres. These are the favourite metres of Prākṛta poets.

Kālidāsa's Vaidarbhi style, conspicuous for absence of long compounds, his similes and the use of classical metres make it amply clear that the poem *Setubandha* cannot be his creation. Kālidāsa has won the applause of all as an artist. He paints beautiful, rather than, colossal pictures of the theme, the latter being the most characteristic feature of the *Setubandha*.

From the above discussion it is certain that Pravarasena, the king of Kuntala, was the author of the *Setubandha*. It is doubtful if Kālidāsa had any hand in its composition except as a scribe. Pravarasena, the author of the poem, was the grandson of Prthvisena of the Vākātaka dynasty, who assumed the title of Kuntaleśa after subjugating Kuntala.¹¹ This title is held by Pravarasena also. He was the 2nd king of that name in the Vākātaka dynasty and as such he is called Pravarasena II. Pravarasena I cannot be the author of this work for he was not Kuntaleśa as the country Kuntala, was conquered long after him. Pravarasena II, the author of the poem, ascended the throne about 415 A. D.

Allahabad.

RAMJI UPADHYAYA.

THE THIRUVATTAR TEMPLE, THE HOLY IDOL AND ITS ANECDOTES

THIRUVATTAR is a small country-place in the Vilavancode taluq of South Travancore. It is situated on the banks of the Tambraparny river, which rises on the north of the Mahendragiri and enters the plains at Thiruvattar. The pagoda here is situated on a picturesque winding of the river, and is dedicated to Mahavishnu. Thiruvattar is of great antiquity and is one of the thirteen

9. *Kālidāsa* by Mⁿ. MIRASHI P. 152.

10. I. 37 of the *Setubandha* and II. 68 of the *Raghuvamsa*.

11. Ajanta inscriptions. See Mⁿ. MIRASHI'S, *Kālidāsa*, P. 42.

divyadesams (places sacred to the Vaishnavas) and attracts a large number of devotees from all parts of India.

Tradition has it that the deity is said to have taken his rest at Thiruvattar after killing an *asura*. The *Purananuru*, a famous Tamil classic, mentions Thiruvattar as the head-quarters of an old chieftain, Elini Adan, who was known for his munificent patronage of men of learning. The Vaishnavite saint, Nammalwar, eulogised the sanctity of the temple in his *Thiruvaimoli*. These facts go to show that the temple is over 12 centuries old and this is supported by the epigraphical records of some of the Chola and Travancore kings. The god, *Adikesava*, is a *Sayanamurthi*, stretched out on his commodious serpent-bed. One of the Travancore kings, Adithyavarma, composed a poem of ten verses in Sanskrit in praise of the deity.

When Mugillan became King

Coming to more modern times, the pagoda appears to have suffered from a Muhammadan invasion. During the time of the Moghul emperor, Aurangazeb, an army was sent under the able command of Mugillan for the conquest and plunder of South India. After subjugating many of the chiefs easily, Mugillan and the Nawab of Arcot marched to Travancore via the Aramboly pass, and plundered most of the places up to Thiruvattar. Learning that there was no ruler in the State, they marched to Trivandrum, where Mugillan proclaimed himself king. While he sent much of his booty to Delhi, the Nawab of Arcot sent his share, including the idol of *Adikesava*, to Arcot.

Stung by Wasps

The custodian of the temple valuables at the time was a *Pisharadi*, by the name of Damodaran Azhati. Grieved at the loss of the idol, he was exploring ways and means of recovering it from Mugillan by hook or crook. At this moment, Umayamma Rani sought the help of Keralavarma, Raja of Kottayam, and drove away Mugillan from Trivandrum. A pitched battle was fought at Thiruvattar. When Keralavarma Raja found that it was difficult to conquer Mugillan and his army, he went to the temple of *Adikesava* and offered prayers. The battle then became very fierce, but soon Mugillan and his followers, who entrenched themselves on a hill, were stung by wasps and they perished. The Muhammadan army was thus routed and driven away.

A Dream come true.

Damodaran Azhati, thinking of recovering the idol from Mugillan, was sorely disappointed on hearing of his premature death. He became perplexed and did not know how to recover the idol. One day, he had a dream that the idol was with the Nawab of Arcot and felt a divine call to go and fetch it. He went on his errand without informing anybody. He felt inspired and reached the palace of Arcot in time.

Meanwhile, the Nawab of Arcot examined his loot after the death of Mugillan. The idol removed from Thiruvattar formed the biggest article of the loot. He placed it at the bottom and the smaller ones over it.

The Nawab and The Idol

When he examined them again after a few days; he found the big idol on the top of others. He was amazed. He again arranged them as before in a methodical manner, only to see the idol over the others the next day. He thought that it was imbued with some strength or spiritual energy. He therefore hit on an ingenious plan of boring a hole at the foot of the idol and bound it in chains underneath. He was at that time suffering much from a malignant disease like piles, a disease which no physician could hope to cure. It was in these circumstances, the Azhati reached Arcot and knocked at the door of the sleeping apartment of the Nawab. The Nawab was startled. Expecting an assassin, he opened the door with weapons in his hand to find the peaceful Azhati, who asked for the idol of *Adikesava*. The Nawab asked him how he knew that the idol was there. Azhati said that his idol was the one which the Nawab found displaced, and which he then kept bound in chains after drilling a hole in one of the legs.

Idol brought back.

The Nawab then thought that he was talking with a superman, and so sought his forgiveness for all his faults and invoked his blessings. Azhati told him that he was not a god or a superman but only a servant of the Thiruvattar temple, and asked for the idol. The Nawab asked him again how he came to know of the incident he had narrated just now. On being told all about

it, the Nawab was immensely pleased, and so returned the idol with pleasure. When he was about to send an escort of sepoys along with him, Azhati informed him that he did not need any help, and that he would go as he came. He reached Thiruvattar quickly and installed the idol in the Adikesava temple.

When this incident was narrated to the Maharaja, he was in raptures. He forthwith repaired to Thiruvattar to ascertain the genuineness of this incident. As Azhati had brought the idol after 18 *nads* or principalities, the Raja was pleased to call him *Pathinettunadan*. He was also the recipient of many other favours from His Highness. The successors of Azhati inherit the title. The hole on one of the legs of the idol is seen even to-day and recalls the old incident.

Thycand, Trivandrum.

L. R. BALA RATNAM.

A NOTE ON THE WORD PRĀG-JYOTIṢA

1. The word *Prāg-jyotiṣa* designating the kingdom (modern Assam) of Naraka and Bhagadatta, occurs frequently in the Epics and the Purāṇas. In the *Mahābhārata*, the word is indifferently used to designate the kingdom as well as its king, Bhagadatta. In *Udyoga* 48/80, *Prāg-jyotiṣa* is the name of an inaccessible city;—*Prāg-jyotiṣam . . . durgam puram*. In *Droṇa* 25/35, king Bhagadatta is meant by *Prāg-jyotiṣa*;—*tato rājā Daśārṇānām Prāg-jyotiṣamupādṛavat*, then the king of the Daśārṇas rushed towards *Prāg-jyotiṣa*, i.e. Bhagadatta. In *Droṇa* 25/37, 42, Bhagadatta is referred to as *Prāg-jyotiṣapatiḥ*, and *Pragjyotiṣa rājā*.

2. In other places Bhagadatta is referred to as *Śailālaya-Parvatapati*; e.g. *eṣaḥ Śailālayo rājā Bhagadattah pratāpavān* (*Strī* 23/10)—this powerful king Bhagadatta, dweller in the hills. So also, *tathā Śailālayo rājā Bhagadatta-pitāmahaḥ* (*Āśrama* 25/10). In *Droṇa* 25/52, *Parvatapatiḥ* = Bhagadatta;—*suparvā parvatapatirninnye Vaivasvataḥsayam*,—the stalwart lord of the hills (i.e. Bhagadatta) was sent to the abode of Vaivasvata.

3. Thus according to his place of origin or residence, Bhagadatta is variously designated as *Prā-jyotiṣa*-, *Prāg-jyotiṣapati*-, *Śailālaya*-, *Parvatapati*-. In *Udyoga* (4/11), Bhagadatta is also called *Pūrvasāgaravāsī*; dweller in the eastern sea.

4. The *Kālikā Purāṇa* suggests a mythological derivation of the formation *Prāg-jyotiṣa* (38/119);—Formerly Brahmā staying here created the star so the city is called *Prāg-jyotiṣapura*. But in SORENSSEN'S *Index to Proper names in the Mahābhārata*, no association of the name with astrology or astronomy is suggested. The etymology is left unexplained like those of other proper names.

5. The etymological lead given by the *Kālikā Purāṇa* has been followed up by the historians of Assam. Sir E. A. GAIT writes: "*Prāg* means former or eastern, and *jyotiṣa*, a star, astrology, shining. *Prāg-jyotiṣapura* may therefore be taken to mean the city of Eastern Astrology. The name is interesting in connection with the reputation which the country has always held as a land of magic and incantation, and with the view that it was in Assam that the *Tantrik* form of Hinduism originated. (*History of Assam*, p. 15). Rai Bahadur K. L. BARUA accepts the etymology but reads in it a different connotation.. "It is significant that to the immediate east of the town of Gauhati there is a temple on the crest of a hill known as *citrācala*, and this temple is dedicated to the *Navagrahas* or the nine planets. It is probable that this temple is the origin of the *Prāg-jyotiṣapura* (*Early History of Kāmarūpa*, p. 13).

6. The *Citrāsaila* or *Arvāk* hill (*Kālikā Purāṇa* 79/120) where the *navagrahas* or nine planets are worshipped, is one of the many sacred places mentioned in the *Kālikā Purāṇa*. The place is not given any prominence in the Purāṇa or in local tradition to lend a name to a whole kingdom. There is a *navagraha* temple also in the state of Baud in Southern India, (*The Imperial Gazetteer of India*, Bengal Vol. ii. p. 453). The association

of Assam to magic and incantation seems to be covered by the term *Kāmarūpa* and not *Prāg-jyotiṣa*.

7. From the varied toponymical epithets of Bhagadatta, *Prāg-jyotiṣa* seems to be connected with topographical features of the land rather than with any religious cult. The *Bhāgavata-Purāṇa* (1/059/2.3), makes pointed mention of the topographical peculiarities of the locality—*Prāg-jyotiṣapuram yayau/ gīrdurgaiḥ, Sastradurgairjalāgnyanīladurgamam*,—(Kṛṣṇa mounted on Garuḍa) went to *Prāg-jyotiṣapura*, inaccessible by reason of hill fortifications, arms fortifications, waters, fires and winds.

8. Subject to usual reservations about the accuracy of etymology based merely on sound and sense, the component elements of the word *Prāg-jyotiṣa* may be equated to the following Austric formations: *pāu*, hill, H93; *ger*, *gerbu*, *garbu*, hill, H87(b); *ma-juh*, *wen-jo*, high, tall, F29; *be-ti*, *be-tig* long, L130(a); *tic'* (Santali), to stretch, elongate; also *pagār* (Mundari), an elevated ridge with a drain on one side; *pagar* (Santali), a water channel.

The topographical features of *Prāg-jyotiṣa* as described in the Purāṇas would correspond to formation like **Pā-gar-juh* (*jo*)-*tic'* (*c-ch*) = (a region of) extensive high hills. Thus *Prāg-jyotiṣa* may be a Sanskritisation of a non-Aryan formation.

9. The probable etymology of *Kāmarūpa* (mediaeval Assam) and its association with magic has been discussed by the present writer in a previous paper (*Austric Sub-Stratum in the Assamese Language*, §§8-9; *NIA*, Vol. I, No. 4, pp. 260-261). In addition to what has been said in that paper about the connection of *Kāmarūpa* with Santali *Kambru*, *Kamru*, the name of a divinity, it may be noted that the term *Kāmarū* as an alternative form of *Kāmarūpa* is attested in an old historical document written in Sanskrit and called *Haragauri-Samvāda* and published in extracts in the *Indian Historical Quarterly* Vol. XVIII. No. 3,—*pālayiṣyati Kāmarūm*; *vasayiṣyati Kāmarūm*; *Kāmarūpaṁ dharmataḥ pālayiṣyati*.

The final *-pa* left unexplained in the previous paper may be equated to Austric *pau*, hill. Thus *Kāmarūpa* the hill of *Kamru*, *Kamaru*, a divinity.

10. It has been said in the *Kālikā Purāṇa*, that immediately after Naraka of Mithilā became king and was placed in charge of the goddess *Kāmākhyā*, the name of the land was changed from *Prāg-jyotiṣa* to *Kāmarūpa* (38/126). The term *Kāmarūpa Kāmākhyā* symbolised a new cult, and in exaltation of it, the land itself was re-christened. It has also been said in the same Purāṇa that the land *Prāg-jyotiṣa* was formerly reserved by Sambu for his own domain (38/96); thus suggesting that before the introduction of the novel cult of *Kāmākhyā*, with associations of magic and incantation, the religion of the land was Saivism.

Thus *Prāg-jyotiṣa* has nothing to do with the worship of any god or goddess or the planets. It is a toponymical term distinct in connection from *Kāmarūpa* which has a religious association.

N.B.—The references to the *Mahābhārata* and the *Kālikā Purāṇa* are to those of the Bangabāsi edition, Calcutta.

Ganhati.

B. KAKATI.

**SOME PROVINCIAL SOCIAL CUSTOMS AND MANNERS MENTIONED
AS DURĀCĀRAS BY DHUNDIRĀJA, A MAHĀRĀŚTRA BRAHMIN
(C. A.D. 1675-1710) RESIDENT OF BENARES**

The name of Bhaṭṭoji Dikṣita, the great grammarian of Benares, who lived between c. A.D. 1560 and 1620 is now a household word among students of Sanskrit grammar in India. Unfortunately no systematic historical account of Bhaṭṭoji and his circle has yet been investigated and recorded on the strength of contemporary evidence. With a view to clarify this problem I have published several papers¹ and have prepared some more for publication in course of time. Among the circle of Bhaṭṭoji's pupils we find one, Varadarāja, who maintained to a certain extent the tradition of his great *guru* in Grammar, which was considered a difficult subject then as now. With a view to simplify grammar he composed some manuals. He also composed a Sanskrit Conversational Grammar or book of Sanskrit Composition called the *Gīrvāṇapadamañjarī* in which the topic of conversation is the daily life of a Benares Brahmin from morn till eve. In this work there is a list of provincial customs and manners which are labelled "*durācāras*" or evil practices. I have dealt with these practices in detail elsewhere.² Varadarāja's work was imitated and improved upon by another author Dhunḍirāja, who appears to have been a Mahārāṣṭra Brahmin of the Mādhva Sect. This imitation is also called the *Gīrvāṇapadamañjarī* in which the topic of the conversation viz. provincial *durācāras* has been evidently borrowed from Varadarāja's work. Dhunḍirāja has, however, added some more *durācāras* to Varadarāja's list as will be seen from the extract quoted below. In the absence of critical contemporary accounts of Indian life, customs and manners the data furnished by both Varadarāja (c. A.D. 1600 and 1660) and his imitator Dhunḍirāja who composed his work some time after A.D. 1700 make interesting reading. Some of Indian customs and manners which are considered religious and holy by us have been condemned by many foreign observers. In the same manner people of one province criticize the customs and manners of other provinces except their own. Dhunḍirāja being himself a Mahārāṣṭra Mādhva Brahmin observes in his work that there are evil practices among people of all provinces of India except among those called 'Mahārāṣṭras'.

1. These papers are :—

- (1) A Critical Survey of the name-sakes of Rāmāśrama (between A.D. 1600 and 1677, *Prācyavāṇī*, Calcutta, 1944). Rāmāśrama refers to Bhaṭṭoji in his *Durjana-mukha-Capeṭikā*.
- (2) The tradition about the Liaison of Jagannātha Paṇḍitarāja with a Muslim lady (*yavānī*)—Is it a myth? • (*Bhāratiya Vidyā*, 1942, 58-62).
- (3) The Influence of Jagannātha Paṇḍitarāja on some Deccani Authors of the Seventeenth Century (between A.D. 1600 and 1700) (*Journal of Mythic Society*, XXXIII, No. 1).
- (4) A Contemporary Manuscript of Bhānuji Dikṣita's Vyākhyā Sudhā dated A.D. 1649 (Bombay Uni. Journal, Sept. 1942, pp. 90-99).
- (5) A Rare Manuscript of the Vedabhāsyasāra of Bhaṭṭoji Dikṣita (*Adyar Library Bulletin*, December 1941, pp. 176-180).
- (6) Historical Background of Cimanī Carita, a romantic love-poem by a pupil of Bhaṭṭoji Dikṣita viz. Nīlakaṇṭha Śukla (*Poona Orientalist*, Vol. VI, 149-158).
- (7) Varadarāja, a pupil of Bhaṭṭoji Dikṣita and His Works—Between A.D. 1600 and 1650 (*Festschrift Prof. P. V. Kane*, 1941, pp. 188-199).
- (8) A New Approach to the Date of Bhaṭṭoji Dikṣita—*Annals of S. V. Oriental Institute*, Tirupati, Vol. 117-127, 1940.
- (9) Nīlakaṇṭha Śukla, a Romantic and Pugnacious Pupil of Bhaṭṭoji Dikṣita and his Works—Between A.D. 1610 and 1670 (*New Indian Antiquary* V, pp. 177-183).

We must explore the complete literary and cultural history of Bhaṭṭoji's age from sources still untapped.

2. Vide my paper on *Some Provincial Social Customs and Manners mentioned as Durācāras by Varadarāja etc.* to be published in *Bhāratiya Vidyā*, Bombay.

In particular he adds : the Mādhva Brahmins are entirely free from evil practices of any sort. This is rather of the nature of the British view of Indian life which once prevailed in the early accounts of Indian life and customs by British and other foreign writers on India. With these preliminary remarks I introduce Dhunḍirāja's list of provincial *durācāras* for verification by my readers in different provinces.

Gīrvāṇapadamāñjari by Dhunḍirāja, son of Śriraṅgabhaṭṭa, resident of Benares, (MS. No. 345 of 1892-95 in Govt. MSS. library, B. O. R. Institute, Poona, folios—8 to 9) contains a discourse on provincial *durācāras* as follows :—

The Sanyāsi quest :— “ तर्हि मया श्रूयते वंगदेशीयाः ब्राह्मणाः केवलं वेदबाह्याः भवन्ति । ”

The Benares host :— “ सत्यं स्वामिनः । तत्रत्याः ब्राह्मणाः स्मृतिप्रामाण्येन वर्तन्ते नच वेदाध्ययनं कुर्वन्ति । ”

Sanyāsi— “ एवं वा भवतु । अन्यत्किञ्चिन्मया श्रुतं वर्तते, तत्रत्याः ब्राह्मणाः अपि मत्स्याशनं कुर्वन्ति तर्हि अयं तु भूयान् दुराचारः क्रियते तैः । इदं सत्यं अवलोकितं । ”

Host— “ तत्तु सत्यं स्वामिनः । एतादृशो दुराचारः कुत्रापि नास्ति । सर्वत्र एकैकं दुराचारस्तिष्ठति । ”

Sanyāsi— “ एतादृशः कुत्र दुराचार स्तिष्ठति किं ”

Host— “ अहं दर्शयामि स्वामिनः । भवद्भिर्दृष्टव्यं । ”

VR (1) आदौ दक्षिणदेशे कलौ मातुलकन्यावरणं वर्षचतुष्टयात्प्राक् कन्यायाः विवाहः दुराचारः ।

VR (2) आन्ध्रदेशे हलचरणं⁴ दुराचारः ।

VR (3) श्रीमतां कर्णाटकदेशे स्नानं विना भोजनं दुराचारः । ताम्रपात्रेः गव्यादीनां निक्षेपणं दुराचारः ।

VR (4) द्रविडदेशकेरलयोः सर्वासां कुचदर्शनं दुराचारः । पथि पयुषितं⁵ अन्नभक्षणं दुराचारः ।

VR (5) केरलदेशे तु उपरिसुरतं दुराचारः ।

VR (6) कोंकणदेशे वृक्षारोहणं दुराचारः ।

VR (7) गुर्जरदेशे चर्मोदकपात्रं⁷ (नं ?) दुराचारः । तृतीयदिने रजस्वलास्नानं दुराचारः ।

VR (8) उत्तरदेशे कलौ मांसभक्षणं दुराचारः । क्वचित्⁸ शुष्कमांसभक्षणं दुराचारः ।

VR (9) पर्वतदेशे कलौ देवरेण सुतोत्पत्तिर्दुराचारः ।

3. Dhunḍirāja has not merely borrowed from Varadarāja's *Gīrvāṇapadamāñjari* (between A.D. 1600 and 1660) but added some new and interesting matter to his imitation of Varadarāja's work (MS. No. 395 of 1899-1915 in the Govt. MSS. Library at the B. O. R. Institute, Poona). To indicate the *durācāras* in Dhunḍirāja's list, which are already recorded by Varadarāja I have indicated them by the abbreviation VR (= Varadarāja).

4. VR has “ हलवहं ”

5. “ ताम्रपात्रे...दुराचारः ” is an addition by Dhunḍirāja.

6. “ पथि...दुराचारः ” added by Dhunḍirāja (= D).

7. VR has “ मेदिक पानं ” for “ चर्मोदकपात्रं ”

8. “ क्वचित्....दुराचारः ” added by D.

- VR (10) मिथिलगौडदेशे सदा तैलस्नापनं⁹ दुराचारः ।
 VR (10) गौडदेशे वेदत्यागो दुराचारः ।
 VR (11) कान्यकुब्जदेशे पण्यस्य घृतपक्वभक्षणं¹⁰ दुराचारः । विवाहादौ भोजन-
 समये परस्परस्पर्शनं दुराचारः ।
 (12) उत्तर देशे परस्त्रीसुरतं दुराचारः¹¹ ।
 VR (13) गौडद्रविडकेरलउत्कलमैथिलेश¹² (पु ?) पक्वकलमतंडुलभक्षणं¹³
 दुराचारः ।
 (14) मगधे वर्णसंकरणं दुराचारः¹⁴ ।
 (15) चंद्रवत्यां दासीगमनं दुराचारः¹⁵ ।
 (16) काश्मीरदेशीयाः द्विजाः केवल्यवनप्रायाः खलु । तेषां दुराचाराणां
 गणना एव नास्ति¹⁶ ।
 (17) सर्वेषां स्ववृत्तिं परित्यज्य अन्यवृत्त्यवलंबनं कन्यायविक्रियाणां विक्रियकरणं
 पथि तांबूलभक्षणं इत्यादि दुराचारविशेषणं स्वभावत एव भवति
 स्वामिनः¹⁷ ।
 (18) महाराष्ट्रं विना सर्वासु जातिषु कश्चिद्विद्वत् दुराचारस्तिष्ठत्येव ।
 महाराष्ट्रेष्वपि ये माध्वाः वर्तन्ते तेषां दुराचारलेशोपि न दृश्यते ।¹⁸

Sanyāsi—

“ इदं तु त्वया सत्यमुक्तं । मयापि अनुभूतं वर्तते । ”

Host—

“ स्वामिनः नो चेत् अनृतमुच्यते किं । श्रीमतां कृपया वयं सर्वं जानीमः ”

Sanyāsi—

“ सत्यं । अरे तव गौडदेशे¹⁹ कानि कानि तीर्थानि वर्तन्ति ” etc.

Dhupdirāja is very harsh in his remarks about the Kashmir Brahmins, who were accord-
 ing to him practically *yavanas* or Muhammadans in their conduct. In this connection I may
 note here the remark of Bernier in his letter of A.D. 1665 written in Kashmir. Answering

9. VR has “ तैलस्नेपनं ”

10. VR has “ पण्यघृतपक्वभक्षणं ”

11. “ उत्तर देशे...—दुराचारः ” added by D.

12. VR omits “ मैथिल ”

13. VR has “ तंडुलौदन भक्षणं ”

14. “ मगधे...दुराचारः ” added by D.

15. “ चंद्रवत्यां...दुराचारः ” added by D.

16. “ काश्मीरदेशीयाः...नास्ति ” added by D.

17. VR has only “ सर्वेषां देशे पथि तांबूलभक्षणं दुराचारः ” for No. 17.

18. “ महाराष्ट्रं विना.....दृश्यते ” added by D. The absence of any *durācāras* or evil
 practices among the *Mahārāṣṭras* in general and among the *Mādhvas* (a sub-sect of the
Mahārāṣṭras) in particular as emphasized by D leads us to believe that D was himself a
Mahārāṣṭra (or *Deśasthā*) *Mādhva Brahmin*. The identity of the Benares host in Dhupdi-
 rāja's work with Dhupdirāja its author is too transparent to be concealed.

19. D was a *Mahārāṣṭra Brahmin* who was born in Gauḍa *deśa* or Bengal. His father
 was also born in Bengal. Like his father he became proficient in *logic* for which Bengal was
 then famous. D later migrated to Benares. D has given a good description of Gauḍa *deśa*
 in the present work (Vide my paper on *Glimpses into the Economic, Industrial and Social
 Life of Bengal as given by a Mahārāṣṭra Brahmin of the 17th Century*—*Indian Culture*,
 Calcutta).

the inquiry of his friend if the Jews have resided for a long period in Kashmir Bernier²⁰ observes :—

“although there seems ground for believing that some of them (Jews) were formerly settled in these countries, yet the whole population is at present either *Gentile* or *Mahometan*.”

Abul Fazl²¹ makes the following remarks on the Brahmins of Kashmir :—

“The *Brahmin* class is very numerous.”

“The most respectable class in this country is that of the *Brahmans*, who, notwithstanding their need of freedom from the bonds of tradition and custom are true worshippers of God.”

“They do not loosen their tongue of calumny against those not of their faith, nor beg nor importune. They employ themselves in planting fruit trees and are generally a source of benefit.”

Bernier's remark shows the growing Muslim element in the population of the Kashmir of the 17th century while the eulogy of the Kashmir Brahmin class by Abul Fazl (c. A.D. 1590) is characteristic of the spirit of amity between the Hindus and Muslims during Akbar's reign. It is possible that the growing Muslim contact with Kashmir Brahmins in the 17th century may have partially removed the extreme orthodoxy of the Brahmin class. This reformist tendency was obviously not cherished by the extremely orthodox Brahmins of Benares like our author Dhuṇḍirāja, who as a Mahārāṣṭra Mādhva Brahmin considered himself free from any *durācāra* as we have seen above.

Poona.

P. K. GOLE

20. Vide p. 429 of *Bernier's Travels* (Constable, London, 1891).

21. Vide p. 44 of *Ancient Monuments of Kashmir* by RAM CHANDRA KAK, LONDON, 1933.

REVIEWS

History of Gingee and its Rulers By Rao Bahadur C. S. SRINIVASACHARI, M. A., Professor of History, Annamalai University, Annamalainagar, 1944, pp. (vii + 625 + xi); Size:—5½" × 8½".

In his able foreword to this book Dr. Sir C. R. REDDY, Vice-Chancellor, Andhra University, pays a just and appropriate tribute to the learned author. Indeed Prof. SRINIVASACHARI is one of our leading scholars in Indian History. He presided over the Hyderabad session of the Indian History Congress, and his Presidential Address is a valuable contribution and a guide to the students of Indian History. He has also a number of books to his credit, such as *Bhoja Raja*, *The Nayaks of Tanjore*, *Ananda Ranga Pillai*, "the Pepys" of French India. etc. Besides these he has edited a few more books. All these works, written in a beautiful style, bear the stamp of ripe scholarship.

The book under review is an important contribution to the Deccan History. The author in his prefatory note says that he first brought out an account of the history of Gingee in a small compass in 1912. Later on extracts from this book were incorporated into the supplementary volumes of South Arcot District Gazetteer. Thereafter more new material was added which made the volume as comprehensive as possible. The pains that the author has taken to collect all the available material from archaeological finds, from the vast literary out-put as is apparent from his useful and interesting bibliography, makes the work all the more important and useful.

The book has ten chapters. The first deals with the fort and its origin. Indeed, the author's description of the fort with its environment is not only interesting but arresting. A short description of it covering 2 pages appears in the Handbook of the Madras Presidency by Edward B. Eastwick, 2nd Edition, 1879, p. 167-169. The subsequent chapters clearly show through what vicissitudes this fort has passed—first emerging from the indigenous tribal occupation, then coming under Chola Rule, and under the sway of Vijayanagar and of its Nayak Governors. Subsequently serving as the battle-field of Bijapur, and Qutub Shahi ambition in the Carnatic; also utilised by Shahaji and Shivaji a possible southern base for the future Maratha resistance to the Muslims. The fort was besieged by Aurangzib and his forces and after a long-drawn fighting, finally it was annexed to the Mughal domain.

Chapter X brings us to the 18th Century. It witnessed the kaleidoscopic succession of quick changing scenes of which Gingee became the pivot.

From the fall of Gingee into French hands down to the assassination of Nawab Nasir Jung, the Martyr, (December 1750), the author gives us a detailed account of the tragedy. The profuse foot-notes marked throughout the pages are not wanting in this Chapter. Carefully as we have perused, we do not find any mention of Nur Muhammad Khan, whose work throws light on this sad event. He was the Courtier of Nawab Nasir Jung who witnessed his master's assassination. A copy of his work lies in the Library of Maulvi Kazi Muhammad Habeebulla, Madras. Besides this, there are letters of Mir Abdur Razak Samsam-ud-Dowlah Shah Nawaz Khan in the Asafia Library, which throw some more light on this sad episode. These, so far to our knowledge, have not been utilised by any historian. Some of these are also found in the Saeedia Library and Mr. Ghuse Muhammad has published a short note on them in the *Majella-i-Telasanian*. The perusal of these MSS. and other published matter which escaped the notice of the author, would have added more valuable information to the already remarkable volume under review.

The book is fully documented and is written, as we have already remarked in his usual beautiful style. It is more than a compact volume, very handy and yet crammed full with all the essential facts concerning the history of Gingee and its Rulers. An Index of 100 pages, maps, and plates together with a fairly large but useful bibliography concludes this valuable contribution. We tender our best compliments to the Author who has rendered a valuable service to the students of the Deccan History.

Secunderabad

K. SAJAN LAL.

NOTES OF THE MONTH

The Publication of the Second Volume of the Sukthankar Memorial Edition on 21st January, 1945 (the Second Anniversary of Dr. Sukthankar's demise).

We have had occasion to publish last year in the issues of the *New Indian Antiquary* (January-February, 1944) an account of the publication of the First Volume of the Sukthankar Memorial Edition on 21st January, 1944, the First Anniversary of Dr. Sukthankar's demise. It is a matter for congratulation to the organizers that they have succeeded in bringing out the Second Volume of the *Memorial Edition* exactly on 21st January 1945, the 2nd Anniversary of Dr. Sukthankar's demise. The formal publication of this Volume was, however, announced on *Saturday, the 27th of January, 1945 at 6 P.M.* when a special function for this purpose had been arranged at the Tata Hall of the Bhandarkar Oriental Research Institute, Poona, with Diwan Bahadur K. M. Jhaveri, M.A., LL.B., J.P. in the chair. The President commenced the proceedings of the evening by garlanding the bust of Sir R. G. Bhandarkar and the portrait of Dr. V. S. Sukthankar and then asked Mr. P. K. Gode, the Hon. Secretary and Managing Editor of the Memorial Edition Committee, to read any letters* for the meeting that might have been received. Mr. Gode reported to the meeting that messages of good wishes and congratulations had been received from several friends like the Raja Saheb of Aundh, the Chairman of the Memorial Edition Committee, Mr. I. H. Taunton, I.C.S., Adviser to H. E. the Governor of Bombay, Sir C. D. Deshmukh, I.C.S., Governor, Reserve Bank of India, Hon'ble Mr. Justice N. S. Lokur, Mr. G. Yazdani, Retired Director of Archaeology, Hyderabad (Deccan), Rao Bahadur P. C. Diwanji, Bombay, Dr. V. Raghavan of the Madras University and others. From these messages Mr. Gode read out the message of Dr. Raghavan in Sanskrit which reads as follows :—

“वैयासिकीं भरतखण्डविचित्रनैक-
विज्ञानकोशनिभभारतसंहितां यः ।
उद्धर्तुमुद्यममधात् सुकथंकराख्यः
तस्य स्मृतिर्बुध्ननस्तु चिराय भूयात् ॥”

Mr. Gode then read out to the meeting his statement on the progress of the work of the Memorial Edition in detail (Vide *Appendix A*).

In announcing the publication of the *Second Volume* of the Memorial Edition, Diwan Bahadur Jhaveri paid in the following words his tribute to Dr. Sukthankar and expressed his appreciation of the work of the Honorary Secretary and his learned collaborators in completing their projected work of publishing the two Volumes of the *Sukthankar Memorial Edition* exactly within two years in spite of all difficulties consequent upon the present world-war :—

“The pledge that the two intimate friends and admirers of Dr. Sukthankar had made to publish two Memorial Volumes within two years of his death has been scrupulously redeemed and we are deeply grateful to them in that they have seen to it that as between the publication of the first and the second Volume no hiatus or gap has been allowed to intervene. As to what it has cost them in time and labour, particularly Mr. Gode, has been set out by him in the account just now rendered to us about their stewardship. But the

* One of these letters is from Pandit M. R. Telang, the Octogenarian Scholar of Karwar who wrote as follows :—“As regards the late learned Prof. Sukthankar, I am sorry I was not personally acquainted with him, but I am glad to tell you that his grandfather Mr. VISHNU GHANASHAM (High-Court Pleader) and his father Mr. SITARAM VISHNU, Civil Engineer, were my friends and from the year 1884 to 1897 I lived in a chawl belonging to them in Girgaum. The renowned High-Court Pleader Mr. SHANTARAM NARAYAN, his grand-father on the mother's side, was also a friend of mine. As I left Bombay on retirement in 1913 and came to reside at Karwar I had no opportunity of seeing him. His name revives many old reminiscences of my past Bombay life. May peace be to his soul.”

description is inadequate. Modesty has prevented them from describing in detail their trials and tribulations in working out the scheme in such a way as would do credit to the memory of the deceased and to their contribution to its complete success. Only those who have undertaken the discharge of such self-imposed duties can realise them. It was a stupendous task, rendered more so, because of the present difficulties of paper, printing and a thousand other drawbacks. I have been in constant correspondence with Mr. Gode, in connection with this work and found his promptness, unbounded enthusiasm, single-mindedness of purpose, to say the least, exemplary, the last word in fact in the matter. One wishes all workers were like him and his colleagues.

I had the pleasure and privilege of working with our late friend Dr. Sukthankar on several committees. I considered it a great honour to do so. One had much to learn from him. Ever-smiling but firm in his resolution; accommodating but never relaxing his principles. He was one of those few Indians like Tagore and Bose whose work and whose genius have won for India a place in the galaxy of international scholars and *savants*. Most of us know him only by his monumental work as the Editor of the Critical Edition of the *Mahābhārata*. It led to his being recognised in Europe, America and Asia as a great Indologist. But what is not widely known is that he was much more than that. History, Archæology, Literature and Language were subjects wherein he was equally at home. He was a linguist and knew several modern and classical European languages as well as the cultural languages of Asia. He pleaded for precision in language and expression. He himself was always precise and insisted on preciseness in others. The reason for it was that he was a Mathematician. He took honours in Mathematics at Cambridge and the scientific training he received there stood him in great stead ever after in his life.

Dr. Sukthankar is gone. We cannot call him back. What then can we do to keep his memory alive? We can start a Memorial Fund. The creation of a Foundation to commemorate his invaluable services to the cause of the Great Epic of India, and Indology at large in the shape of a lectureship, seems to me one of the ways in which this purpose can be achieved. Very little would remain out of the funds collected for the publication of the two Memorial Volumes. Perhaps there would be a deficit. The sale-proceeds of the two Volumes would come in very slowly and would not amount to much. Even so, when realised they can be ear-marked to be credited to the contemplated Memorial Fund. I therefore earnestly appeal for donations for that purpose. Rs. 20,000/- would be in my opinion the least amount required to start with. I request you therefore to help the committee in getting donations for this purpose.

I cannot conclude without paying my meed of praise to the three indefatigable and selfless workers Dr. Katre, Mr. Gode and Prof. Kosambi and the large number of their helpers, all inspired by their love and admiration for our late friend.

I thank you all for attending this function. I also announce the publication of the *Second Volume of Sukthankar Memorial Edition*."

The President then requested Rao Bahadur K. N. Dikshit, M.A., Retired Director-General of Archæology in India, the guest of the evening to deliver his address on *The Present State of Indological Studies*. Rao Bahadur Dikshit told the audience how he was associated with his friend the late Dr. Sukthankar, when the latter joined the Archæological Department. He observed that the type of work which Dr. Sukthankar was then required to do involved a good deal of travelling and administrative work, which was not very congenial to his scholarly habits. Dr. Sukthankar loved quiet study and reflection as will be seen from the contents of the Memorial Edition and consequently he bade farewell to the Archæological Department within a few years. It was a great loss to the Archæological Department but what was a loss to Archæology has proved to be a great gain to the national Mahābhārata work of the Bhandarkar Institute. With these remarks Rao Bahadur Dikshit delivered his learned address for the evening in which he traced the progress of Indological Studies in India. He also dealt with the present state of these studies and indicated briefly their possibilities, if carried on in a well-organized manner with proper planning and vision. The full text of Rao Bahadur Dikshit's address will appear in a subsequent issue of the *New Indian Antiquary*.

In concluding the proceedings of the evening the President thanked the eminent lecturer for his illuminating address, which was a fitting tribute to the memory of the late Dr. Sukthankar by a colleague of his in the Archæological Department. He further added that the learned bodies in this presidency like the Bhandarkar O. R. Institute and the recently started Bharatiya Vidya Bhavan of Bombay and the Deccan College Research Institute of Poona have been doing splendid work in the different fields of Indology. Though the University of Bombay has not started any department for Indology it has shown its solicitude for research in other branches of knowledge by running the School of Economics and Sociology not to say its School of Chemical Technology and other academic activities. Dr. P. L. Vaidya then thanked the President, the lecturer, the audience and the authorities of the Institute in fitting words for their co-operation in making the function a success. After the garlanding of the lecturer and the President this delightful function came to a close.

(APPENDIX A)

Statement read by Mr. P. K. Gode, the Hon. Secretary of the Dr. V. S. Sukthankar Memorial Edition Committee on 27th January, 1945 on the occasion of the publication of the Second Volume of the Sukthankar Memorial Edition.

Mr. President, Ladies and Gentlemen,

I have great pleasure in welcoming you here today to do honour to the memory of my most esteemed friend and colleague the late lamented Dr. V. S. Sukthankar, the world-renowned General Editor of the Critical Edition of the Mahābhārata by the completion of the Memorial Edition of his Published Writings, the First Volume of which was brought out by the Memorial Edition Committee on 21st January 1944 and presented to the world of scholars at the hands of the Right Hon'ble Dr. M. R. Jayakar. Those of you who were present on the occasion of the First Anniversary of Dr. Sukthankar's demise on the above date may perhaps be remembering the exhortation of Dr. Babasaheb Jaykar, our eminent President, on that occasion to complete the Memorial Edition *without a hiatus* by the publication of its Second Volume because in India a hiatus has always proved fruitless like some acts of Indian Legislature. It is not for me to say how far the Indologists of this country have been influenced by the august traditions of the Indian Legislature referred to by our eminent friend. I feel confident, however, that the Second Volume of the Memorial Edition which will be presented to you shortly will conclusively show that the organizers of the Memorial Edition have been following Dr. Sukthankar's traditions rather than those of Indian Legislature. It is Dr. Sukthankar's monumental scholarship, that now stands encased in this miniature *stūpa* of the Memorial Edition, that is mainly responsible for the successful completion of the Memorial Edition today in spite of every conceivable difficulty created by the present world-war, which has stampeded temporarily the growth of cultural values.

In my Preface to the First Volume of the Memorial Edition I had observed that the valuable and scholarly contents of that volume speak for themselves and will continue to speak with greater resonance as years pass by. These remarks have been fully vindicated by the appreciations of this project as reflected in the volume of correspondence from eminent scholars received by me both before and subsequent to the publication of the Volume a year ago. It may not be out of place here if I record below a few extracts from this correspondence :—

Dr. M. B. Emeneau of the University of California and Associate Editor of the *Journal of the American Oriental Society* while communicating to me the permission of this Society to include Dr. Sukthankar's papers published in their Journal writes to me under date 23rd July 1943 as follows :—

"May I say, personally, how deeply grieved all Sanskritists in the United States of America are at the death of the late Dr. Sukthankar? Those of us who knew him as friend grieve not only at the loss that scholarship has sustained, but especially at the loss of a dear friend. India is the poorer for the loss of such a scholar and man."

Dr. F. W. Thomas, the veteran Orientalist of Oxford writes to me under date May 20th, 1944 :—

"I hope your devoted work in the Commemoration of Sukthankar's work is progressing. Of course I shall subscribe for a copy of the Memorial Edition of his Writings. I am pleased to see that you still have the active support and inspiration of the Pant Pratinidhi Sahib whom I found in 1920 as the presiding genius of the Mahābhārata Edition."

Dr. L. D. Barnett, now Librarian of the School of Oriental and African Studies, London, wrote to me on 4th August, 1943 :—

"If I may venture to speak for myself I would sum up my opinion of Dr. Sukthankar by describing him as a great gentleman. By his enthusiasm and vigour he accomplished a large part of the great work to which he dedicated his life. I trust that his successors will bring it to final completion."

Though Central Europe was barred to us owing to war Dr. Walter Ruben of the University of Ankara in Turkey wrote to me on 11th April, 1943 :—

"You know how I admired the work of Sukthankar, not only the Edition but also his valuable papers published by the Bhandarkar Institute, as far as I could get them,—mainly by the goodness of the author himself who sent me copies—and I am sure that every Indologist will again and again make use of the proposed *Memorial Edition*.

What European Academies could not undertake, Sukthankar has done and has succeeded in editing in a relatively short time a considerable part of the Mahābhārata in such a way that for generations to come no richer apparatus criticus nor better edition can be imagined. I am busy with critical studies of the *Rāmāyana* and the *Harivamśa* since several years. I, therefore, know very well the enormous difficulties to be overcome in such an edition and I can only express my deep admiration for the courage, the keenness and effectiveness of our late friend Sukthankar... this grand undertaking (Mahābhārata Edition) will be a monument *ære perennius* for Sukthankar, who was without any doubt one of the best Indologists not only in India but in all Continents."

The foregoing brief extracts from the letters of eminent foreign Indologists amply reveal their respect and admiration for Dr. Sukthankar's character, learning and scholarship, which brought international reputation to the Bhandarkar Oriental Research Institute which he served for no less than seventeen years.

Many of our friends who knew Dr. Sukthankar only by his work as General Editor of the Mahābhārata are not acquainted with his varied interest in other branches of Indology such as History, Archaeology, Literature etc. The contents of the Second Volume of the Memorial Edition that is being published today will disclose at a glance what type of training Sukthankar had received previous to his starting his monumental work on the Mahābhārata. Sukthankar maintained his interest in other branches of Indology side by side with his arduous work on the Great Epic as will be seen from the following extract from the letter—1st February, 1943—of Dr. Bisheshwar Prasad, Joint Secretary of the Indian History Congress :—

"I had the good fortune of coming into touch with Dr. Sukthankar and shall always treasure the sweet memories of his association. He was a great scholar who devoted himself to the cause of learning. A Memorial to him should be worthy of the esteem in which he was held by his friends and admirers. I hope you will do everything to make it successful. I fully associate myself with it and shall do everything which lies in me to help the sacred cause. Dr. Sukthankar had been elected President of the Ancient History Section of the Indian History Congress for this year and he was also a member of the Editorial Committee of the Ancient History Volumes of the projected History of India. In his death the Indian History Congress has lost a great pillar of its strength and a scholar whose co-operation was so necessary to make successful the project of the History of India."

As regards Dr. Sukthankar's association with the Archæological Department between 1915-1920 which is responsible for his papers on Epigraphy published in the Second Volume of the Edition I may record here (1) Dr. Sukthankar's application dated 7th December, 1914 and (2) Sir R. G. Bhandarkar's letter of the same date to Sir John Marshall, the then Director-General of Archæology in India in support of this application. I am extremely thankful to my friend Dr. N. P. Chakravarti, the Deputy Director-General of Archæology for forwarding to me copies of these almost historic documents from the records of his Department on 26th May, 1943.

(1) *Extract from Dr. Sukthankar's application :*

"I beg most respectfully to state I graduated in the University of Cambridge, having passed the examination for the degree of Bachelor of Art with honours in Mathematics and Natural Philosophy in 1905-6. I have studied at St. John's College, Cambridge for four years (1903-7). The degree of Master of Arts I completed in 1912. In 1911 I joined the University of Berlin (Germany) in order to pursue the study of Sanskrit and the Comparative Science of Language and worked with Prof. Lüders of that University for about three years and a half (1911-14). My Dissertation for the acquisition of the Ph.D. which is now in print consists of a specimen Edition of the Śākaṭāyana Grammar. I have further gone through a course of instruction in Pali, Prakrit, Avesta, Modern Persian, and Indian History, and I beg to ask your special attention to the fact that I attended a course of lectures on Classical Archæology and History of Art in the University of Berlin. I passed the Examination for the Ph.D. in July last (1914)."

(2) *Sir R. G. Bhandarkar's letter in support of Dr. Sukthankar's application addressed to Sir John Marshall :*

"I have great pleasure in supporting the application of Dr. V. S. Sukthankar. I have read one or two of his articles published in the Journal of the German Oriental Society. They are written in the manner of a strict critical scholar. He has compiled excellent indexes to my recently published work on "Vaiṣṇavism, Śaivism etc." which was edited by Prof. Lüders of Berlin. I give below an extract from Prof. Lüders' letter to me :

"I take the liberty of introducing to you Dr. Vishnu Sitaram Sukthankar, a young Sanskrit Scholar, who to some extent is known to you already, being the compiler of the indexes to your book on "Vaiṣṇavism, Śaivism etc." Dr. Sukthankar has worked with me for more than three years and I can honestly say that he has been one of the best pupils I ever had. He has not only acquired a sound knowledge of Sanskrit but he is well schooled also in the methods of philology and I am fully convinced that he will be able to carry on the work of research of which he has given proof already in his dissertation and some papers in the Journal of the German Oriental Society. I hope that Dr. Sukthankar will succeed in gaining some appointment that will enable him to make use of his talents and learning for the benefit of Indian scholarship."

Under these circumstances I have every hope that Dr. Sukthankar will be a valuable assistant in your Department. He is not only acquainted with the critical methods of enquiry but has gone through a special course of instruction in Classical Archæology. I beg, therefore, that you will confer some appointment in the Department on him."

It is no wonder that a brilliant candidate supported by two eminent Orientalists like Dr. Lüders and Sir R. G. Bhandarkar should secure the post of Assistant Superintendent of Archæology and hold it between 1915-1919. The foregoing extracts give us the back-ground of Dr. Sukthankar's career and training which produced the contents of the second Volume of the Memorial Edition we are publishing today.

A year ago Dr. Babasaheb Jayakar in his Presidential remarks gave us in brief an account of his association with Dr. Sukthankar at Cambridge between 1903 and 1906 and his continued life-long friendship with Dr. Sukthankar. Subsequent to these remarks I was

agreeably surprised to know from Sir C. R. Reddy, Kt., Hon. D.Litt., the Vice-Chancellor of the Andhra University, that he was Sukthankar's contemporary at Cambridge. Sir C. R. Reddy obtained from me a copy of the First Volume of the Edition and on 11th March, 1944, wrote to me as follows :

"I have gone through the First Volume which you sent and am wonder-struck at the deep scholarship, penetrating judgment and elegant style of Sukthankar."

Sir Reddy had a photograph of Dr. Sukthankar taken in 1906 with his autograph. This photograph has been inserted in the Second Volume through the favour and courtesy of Sir Reddy. My contact with this eminent friend of Dr. Sukthankar developed after the publication of the First Volume almost by a Providential arrangement. I requested this friend to help me in securing some funds for the completion of the Memorial Edition and without any reminder Sir Reddy issued on 9th May, 1944 a personal appeal to his well-placed eminent friends. I quote below an extract from this appeal which records in a forceful style Sir Reddy's appreciation of Dr. Sukthankar and his scholarly work :—

"Dr. V. S. Sukthankar whose early death is the most serious loss to Sanskrit and Oriental Learning generally that India has sustained since the death of Dr. Bhandarkar was a contemporary of mine in Cambridge. Even in those early years he had quite a reputation for original thinking. By far the greatest undertaking of modern India in the line of Oriental Publication is the *Critical Edition of the Mahābhārata*. . . . The Editorship of such an undertaking required colossal scholarship, vast patience and a critical acumen of the highest type. Dr. Sukthankar, who had studied Sanskrit both in Cambridge and in Berlin was appointed Editor. How well he has done the work is proved by the remarkable reception given to it by Sanskritists of all the Universities of the world. It may be remarked that under him the American Professor of Sanskrit in the University of Yale was editing one of the Parvans. Dr. Sukthankar died before the *Critical Edition* as it is called, of all the Eighteen Parvans could be published. But by the publication of five or six Parvans he had set the standard and the model for all future work. It will be recalled that this *Critical Edition* has been under preparation for over 25 years and imagination staggers at the volume of labour, comparative study and critical work involved."

Dr. Sukthankar embodied some of the results of his studies in Sanskrit Mahābhārata in a series of astoundingly profound and brilliant Prefaces, Essays and Lectures. These are now under publication and the First Volume has been published. . . . I have read this First Volume myself and my advice to every Hindu is that he must regard the study of it as an indispensable part of his culture."

This was almost a bugle call to duty made by an eminent friend of Dr. Sukthankar and I was agreeably astonished to see how it was responded to by the worthy friends of Sir C. R. Reddy. In fact between 9th May and 30th August, 1944 I received the following donations for the Edition through Sir Reddy :—

- Rs. 500—The Rajasaheb of Bobbili, K.C.I.E., Hon. D.Litt., Ootacamund.
- Rs. 500—The Hon'ble the Maharaja of Parlakimedi, Prime Minister of Orissa, Cuttack.
- Rs. 500—The Raja Sahib of Munagala, Hyderabad (Deccan).
- Rs. 250—The Hon'ble Raja Sir Annamalai Chettiar, K.C.I.E., Raja of Chettinad, Madras.
- Rs. 250—Sir C. P. Ramaswami Aiyar, K.C.S.I., K.C.I.E., LL.D., Dewansaheb of Travancore, Trivandrum.
- Rs. 100—The Hon'ble Sir Manohar Lal, Kt., Finance Minister, Government of Punjab, Lahore.
- Rs. 25—Sir Alladi Krishnaswami Iyer, Kt., Madras.

I cannot adequately express my sense of gratitude to these distinguished donors for their generosity and to our eminent friend Sir C. R. Reddy whose devotion to Dr. Sukthankar prompted him to run to my rescue at a time when I was worrying myself over the financial responsibilities of the Second Volume of the Edition. In view of the spontaneous interest of Sir Reddy in this work which has materially facilitated the completion of the projected Edition it was the earnest desire of myself and my colleagues to bring him here to grace

this occasion by his presence but unfortunately he is unable to meet our desire owing to his responsibilities as the Vice-Chancellor of the Andhra University.

Besides the help received through the good offices of Sir Reddy as indicated and gratefully acknowledged by me already I have received some donations and subscriptions towards the Second Volume of the Edition. The names of these donors and friends are included in the *Tabula Gratulatoria* appended to the present Volume. I have to convey to all these friends the grateful thanks of the Memorial Committee for their generosity and kindness which has crowned the Committee's efforts with success. Special thanks are, however, due to the following donors for their unstinted help as indicated below :—

- Rs. 300—The Government of Bombay purchased 20 copies of the First Volume on the recommendation of Mr. S. N. Moos, M.A., I.E.S., C.I.E., Director of Public Instruction and Prof. R. P. Patwardhan, M.A., I.E.S., the Deputy Director of Public Instruction. I have to convey my personal thanks to these distinguished friends for their good offices in recommending to Government the purchase of the copies as indicated above.
- Rs. 200—Dr. M. R. Jayakar was kind enough to make a spontaneous gift of Rs. 200— for the Second Volume in addition to Rs. 100 paid by him for the First Volume. My personal thanks are due to Dr. Babasaheb Jayakar for this noble gift.
- Rs. 200—The University of Bombay has donated Rs. 200 for the Second Volume in addition to Rs. 150 already donated by them for the First Volume. Our best thanks are due to the Vice-Chancellor Sir B. J. Wadia and many other friends of Dr. Sukthankar at the University whose good offices have alone been responsible for these donations.
- Rs. 150—Shrimant Balasaheb Pant Pratinidhi, B.A., Rajasaheb of Aundh, the Chairman of the Memorial Committee, has sent Rs. 150 for the Second Volume in addition to Rs. 100 already paid by him for the First Volume.
- Rs. 100—Pandit Hari Narayan Purohit, Vidyabhushana of Jaipur, whose scholarly contact with me during the last ten years has enlivened my interest in the history of Jaipur and Rajaputana, sent me Rs. 100—voluntarily after reading the First Volume to which he had already subscribed. This Octogenerian friend of mine wrote to me on reading the First Volume :—“The present edition (Vol. I) is so valuable a production that even crores of rupees would not be equal to its value.” I shall ever remain grateful to Panditji for this noble gift, which is a token of his great regard for learning and the learned.

Besides the financial help received from donors and subscribers which facilitated my work I have received from the several publishers and Editors of Sukthankar's writings the necessary permission to include these writings in the Memorial Edition. In my Prefaces to both the Volumes of the Edition I have thanked all these persons and institutions individually but in case I have overlooked anyone's copy-right in my hurry to get the Edition published expeditiously or owing to circumstances created by the war I beg to be excused.

As in the case of the previous volume the entire editing of the present volume of the Memorial Edition has been carried out by my most esteemed friends Dr. S. M. Katre, and Prof. D. D. Kosambi at great inconvenience to themselves. They have received ungrudging co-operation from our friend Dr. V. V. Gokhale of the Fergusson College in editing Dr. Sukthankar's thesis in German included in the Volume. I convey to these learned friends my heart-felt thanks for their unstinted collaboration which involved arduous work of the most exacting type owing to the complicated and varied nature of the material printed. No literary work which requires the collaboration of various scholars can be efficiently accomplished without mutual confidence and I am glad to say that I have enjoyed this confidence from Dr. Katre and Prof. Kosambi in the highest degree in the execution of the present project.

Every sacred work requires a presiding genius and in the case of the Memorial Edition no better presiding genius could have been found than Shrimant Balasaheb Pant Pratinidhi, B.A., the Rajasaheb of Aundh and Dewan Bahadur K. M. Jhaveri, M.A., LL.B., J.P., the

Chairman and Vice-Chairman of the Committee respectively. I am fortunate in having enjoyed their constant help, advice and guidance in the completion of the project. To our Rajasaheb now running his 77th year and Dewan Bahadur Jhaveri also now in his 77th year I convey my most grateful thanks for their valuable help, guidance and blessings in the work so successfully accomplished and wish them long life and increasing prosperity in the years to come. May God give us the benefit of such a combined presiding genius for our future literary projects is my only hope and prayer and I am sure you all join me in these hopes and aspirations.

I started my work on the Memorial Edition with the guaranteed collaboration of my friends Dr. Katre, Prof. Kosambi and Mr. M. N. Kulkarni, the Manager of the Karnatak Publishing House and the Karnatak Printing Press. Like Profs. Katre and Kosambi Mr. Kulkarni has fulfilled his guarantee to the letter in executing the work of the Memorial Edition according to schedule in the best possible typography and printing for which the Karnatak Publishing House has built up a unique reputation during the last quarter of a century. If "dress makes the man" and the "style makes the author," the "Publisher makes the Author or Editor" with equal propriety if not more. Dr. Sukthankar was very scrupulous about good editing, good printing, and good publishing and much of the credit of bringing out the Memorial Edition in the best possible form and character goes to our friend Mr. Kulkarni and his renowned Press and Publishing House. Though Mr. Kulkarni's high regard and admiration for Dr. Sukthankar were mainly responsible for his execution of this work in spite of all difficulties, I have to convey to him the most grateful thanks of the Memorial Committee. Latterly Mr. Kulkarni has been helping many scholars in bringing out their scholarly publications at great sacrifice to himself and I am voicing the feelings of these scholars when I convey to him my best wishes for a happy long life and increasing reputation and prosperity to his Publishing House in succeeding years.

In my Preface to the First Volume I had reserved my thanks to my friends and colleagues on the Memorial Edition Committee. On the completion of the Memorial Edition today the Second Anniversary of Dr. Sukthankar's lamented demise I convey to these friends and colleagues my most sincere thanks for their continued co-operation and blessings throughout the execution of this project. I beg to be excused for any deficiencies in the Edition consequent upon the present war conditions and seek the indulgence of the readers of the Edition towards all faults of omission and commission that may have crept in imperceptibly.

Finally, Mr. President, Ladies and Gentlemen, let me thank you most cordially for listening to me with great patience and attention.

21st January, 1945.

P. K. GODE.

* * * * *

We are glad to announce the foundation of an INDIAN PHILOLOGICAL ASSOCIATION at Poona for the "advancement of philological knowledge in the widest sense of the term including study of and research into *languages, history and culture*." A preliminary meeting of this Association was convened by Rao Bahadur K. N. Dikshit, M.A., Retired Director-General of Archaeology in India at his residence (Rao Bahadur Chitale's Bungalow, Poona 4) on 31st January 1945. At this meeting the following members were present—Rao Bahadur K. N. Dikshit (Chairman and Convener), Dr. V. M. Apte, Dr. S. M. Katre, Mr. P. K. Gode, Dr. Mrs. Irawati Karve, Dr. H. D. Sankalia, Mr. T. S. Shejwalkar, Dr. R. N. Dandekar, Dr. P. L. Vaidya, Dr. M.A., Chaghatai and Mr. C. R. Sankaran. After a preliminary discussion the meeting adopted the Memorandum and the Rules and Regulations of the Association. These are published elsewhere in this issue for the information of scholars interested in the activities of this Association. The meeting then elected its First Executive Council with the following personnel :—

- (1) Rao Bahadur K. N. Dikshit, M.A. (*Chairman*).
- (2) Prof. R. P. Patwardhan, M.A. (*Vice-Chairman*).
- (3) Prof. P. K. Gode, M.A. (*Editor of Publications*).

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| (4) Prof. D. R. Gadgil, M.A., M.LITT. | } (Trustees). |
| (5) Sir R. P. Masani, M.A. KT. | |
| (6) Prof. Dr. H. D. Sankalia, M.A., LL.B. PH.D. (<i>General Secretary</i>). | |
| (7) Prof. C. H. Shaikh, B.A. (Hons.), Bar-at-Law (<i>Associate Secretary</i>). | |
| (8) Prof. Dr. S. M. Katre, M.A., PH.D. (<i>Treasurer</i>). | |
| (9) Principal R. D. Karmarkar, M.A. | |
| (10) Dr. P. L. Vaidya, M.A., D.LITT. | |
| (11) Dr. R. N. Dandekar, M.A., PH.D. | |
| (12) Khan Bahadur Prof. A. K. Shaikh, M.A. | |
| (13) Prof. Dr. V. M. Apte, M.A., PH.D. | |
| (14) Dr. A. N. Upadhye, M.A., D. LITT. | |

Arrangements are being made by the Executive Council to get the ASSOCIATION registered and to enlist new members. Owing to the country-wide interest in Indology it has become necessary to give a scientific direction to the work of individual research workers in this country and a body like the INDIAN PHILOLOGICAL ASSOCIATION with a preponderantly academic bias, coupled with an all-India out-look in the varied fields of its research will not fail to exercise a healthy influence on the future Indological research in India. At a time when the problems of industrial and agricultural reconstruction of India are exercising the minds of our politicians and industrialists, those who care for the academic well-being of India cannot afford to sit with folded hands. It is time for them to formulate and execute definite plans of research in the several domains of knowledge for the ordered progress of the intellectual life of this country. We trust, therefore, that the workers of the newly founded INDIAN PHILOLOGICAL ASSOCIATION will before long commence their efforts in the directions chalked out by them and thus help the cultural reconstruction of the nation in the years to come.

MEMORANDUM OF ASSOCIATION

OF

THE INDIAN PHILOLOGICAL ASSOCIATION

1. The name of the Association shall be 'THE INDIAN PHILOLOGICAL ASSOCIATION.'
2. The Head Office of the ASSOCIATION shall be located in Poona.
3. The objects of the ASSOCIATION shall be :
 - (a) The advancement of philological knowledge in the widest sense of the term to include study of and research into languages, history and culture.
 - (b) The publication, from time to time, of the results of these researches in the form of books, monographs and periodicals.
 - (c) The arrangement of lectures, discussions, symposia and conferences, etc. connected with philological subjects.
 - (d) The provision of facilities for research in the above subjects by the establishment of reference and other libraries.
 - (e) The collection of funds through membership fees, donations and other means for the establishment, continuation and maintenance of any or all the objects of the ASSOCIATION.
 - (f) The acquisition of movable and immovable property for all purposes of the ASSOCIATION, not inconsistent with the aims and objects of the ASSOCIATION.
 - (g) The execution of all projects necessary to fulfil the above-named objects of the ASSOCIATION.
4. The management of the ASSOCIATION shall be vested in an Executive Council to be elected according to the Rules and Regulations of the Association. The first Executive Council shall consist of :
 1. Chairman : Rao Bahadur K. N. Dikshit, M.A.
 2. Vice-Chairman : Prof. R. P. Patwardhan, M.A.
 3. General Secretary : Dr. H. D. Sankalia, M.A., LL.B., PH.D.

4. Associate Secretary : Prof. C. H. Shaikh, B.A. (Hons.), Bar-at-Law.
5. Treasurer : Dr. S. M. Katre, M.A., PH.D.
6. Editor of Publications : Prof. P. K. Gode, M.A.
7. Trustee : Sir R. P. Masani, M.A., KT.
8. Trustee : Prof. D. R. Gadgil, M.A., M.LITT.
9. Khan Bahadur Prof. A. K. Shaikh, M.A.
10. Dr. P. L. Vaidya, M.A., D.LITT.
11. Dr. V. M. Apte, M.A., PH.D.
12. Principal R. D. Karmarkar, M.A.
13. Dr. R. N. Dandekar, M.A., PH.D.
14. Dr. A. N. Upadhye, M.A., D.LITT.

RULES AND REGULATIONS OF THE INDIAN PHILOLOGICAL ASSOCIATION

- I. Definitions : For the purposes of the Rules and Regulations :
 - (a) The term 'ASSOCIATION' shall mean the 'Indian Philological Association.'
 - (b) The term 'Head Office' shall mean the main Office of the Association in Poona.
 - (c) The term 'Branch Office' shall mean any other particular branch which the ASSOCIATION establishes outside Poona.
 - (d) The term 'Member' shall mean a Member of the ASSOCIATION under the Rules and Regulations hereinafter specified.
 - (e) The term 'General Meeting' shall mean the Annual General Meeting of the Members of the ASSOCIATION.
 - (f) The term 'Special Meeting' shall mean any special meeting of the Members of the ASSOCIATION, convened for specific purpose or purposes.
 - (g) The term 'Executive Council' shall mean the executive body of the ASSOCIATION elected according to the Rules and Regulations of the ASSOCIATION.
 - (h) The term 'Meeting of the Executive Council' shall mean any meeting of the Executive Council convened for conducting the business of the ASSOCIATION.
- II. Membership :
 - (a) The General Body of the Association shall consist of the following classes of Members :
 - A. ORDINARY MEMBERS consisting of (1) Patrons, (2) Vice-Patrons, (3) Donors, (4) Benefactors, (5) Life Members and (6) Annual Members.
 - B. HONORARY MEMBERS.
 - (b) Any person interested in the study of Indian Philology, which term, in its widest sense, includes language, history and culture, will be elected a Member, provided his or her name is proposed and seconded by two Members of the ASSOCIATION in good standing, and he or she agrees to pay annually a fee of Rupees Ten (Rs. 10) as Membership fee.
 - (c) A Member in good standing is one who has paid all his or her dues to the Association according to the Rules and Regulations.
 - (d) Every Member of the ASSOCIATION shall agree to abide by the Rules and Regulations of the ASSOCIATION. Failure to comply with such Rules and Regulations will render the Member liable to be disqualified from Membership.
 - (e) Any Member who pays Rs. 200 in one lump sum or in suitable instalments within one year shall be elected a Life Member.
 - (f) Any Member who pays not less than Rs. 500 in one lump sum or in suitable instalments within one year shall be elected a Benefactor.

- (g) Any Member who pays not less than Rs. 1000 in one lump sum or in suitable instalments within a year shall be elected a Donor.
- (h) Any Member who pays not less than Rs. 2,500 in a lump sum or in suitable instalments within a year shall be elected a Vice-Patron.
- (i) Any Member who pays not less than Rs. 5,000 in a lump sum or in suitable instalments within a year shall be elected a Patron.
- (j) Life Members, Benefactors, Donors, Vice-Patrons and Patrons shall be exempt from payment of any further membership fees.
- (k) Any person who has rendered distinguished service to the cause of philological knowledge in its widest sense, or to the ASSOCIATION in particular, may be elected an HONORARY MEMBER of the ASSOCIATION for life by the General Body on the recommendation of the Executive Council. The number of Honorary Members at any one time shall not exceed twenty.

III. Sympathisers :

The Executive Council may admit from time to time any person interested in the activities of the Association as a Sympathiser on payment of Rs. 5 annually. Sympathisers will be entitled to make use of the Library of the ASSOCIATION on the premises of the Association and to attend or take part in all the academic activities of the Association as specified in Clause 3(c) of the Memorandum of Association.

IV. Rights and Privileges :

- (a) Members shall have the right to attend and vote at a meeting of the General Body, or to elect or be elected (if they are not full-time servants of the Association) Members of the Executive Council.
- (b) Every Member shall be entitled to receive, free of charge, all issues of the Proceedings of the Association after his or her election.
- (c) Every Member shall be entitled to receive a notice of the Annual General Meeting at least one month before the date of the meeting, and of any other special meeting at least fifteen days before such meeting.
- (d) Life Members shall be entitled to receive, on application, the publications of the ASSOCIATION at 20 per cent discount on the published prices.
- (e) Benefactors and Donors shall be entitled, to receive, on application, all the publications of the Association at a discount of 40 per cent on the published prices.
- (f) Vice-Patrons, Patrons and Honorary Members shall be entitled, on application, to receive all the publications of the ASSOCIATION at a discount of 50 per cent on the published prices.

V. Powers and Functions of the General Body :

- (a) The General Body of the Association shall normally meet every year in the last week of July, to receive and adopt the annual report of the Association, together with the audited accounts, and the budget for the ensuing year. It shall also appoint auditors for the ensuing year to audit the annual accounts.
- (b) Every fourth year the General Body shall elect its President and Vice-President. It shall also elect every fourth year, from among the Members of the Association, twelve Members of the Executive Council as specified in the Election Rules appended to these Regulations.
- (c) The Secretary of the Executive Council shall be the *ex-officio* Secretary of the General Body. It shall be his duty to keep the Minutes of the proceedings of the General Body, to issue notices of meetings and to transact all other business of a like nature, as directed by the President.
- (d) Notice of the Annual General Meeting shall be issued to every Member one calendar month before the date of the meeting, and of any special meeting at least fifteen days before the date of such meeting.

- (e) Any special or extraordinary meeting of the General Body shall be summoned on the written requisition of at least twenty Members, or on the initiative of the President, to consider such matters only as may be specifically mentioned in the requisition.
- (f) The General Body may make for the conduct of its own affairs by-laws not inconsistent with these Rules.
- (g) The General Body shall have the right to make, amend or repeal the Rules and Regulations of the Association with the consent of at least three-fourth majority of the Members present, and only after due written notice of such intention has been circulated to Members at least one month before the date of such meeting.
- (h) No sale, purchase, mortgage or any other transaction relating to the immovable property of the ASSOCIATION shall be effected without a previous Resolution of the General Body, passed with a plurality of votes of not less than two-thirds of those present.

VI. Trustees :

- (a) There shall be two Trustees appointed by the General Body for a period of five years.
- (b) Retiring Trustees shall be eligible for reappointment.
- (c) Any *ad-interim* vacancy caused by death, resignation, etc. shall be filled up by the General Body.
- (d) All the immovable property, the Reserve Fund and such other property of the ASSOCIATION as will be determined by the General Body, shall be vested in the Trustees.
- (e) The outgoing Trustees shall continue in office until their successors are appointed and take charge.
- (f) The Trustees shall be *ex-officio* Members of the Executive Council.

VII. The Executive Council :

- (a) The Executive Council shall consist of fourteen Members of the ASSOCIATION elected every fourth year by the General Body at its annual general meeting, according to the Election Rules hereinafter appended.
- (b) At its first meeting the Executive Council shall elect its own Chairman, Vice-Chairman, General Secretary and Associate Secretary, Treasurer and Editor of Publications.
- (c) The Executive Council shall normally meet once a month, and the notice of such meeting shall be issued at least one week in advance.
- (d) The Chairman or in his absence the Vice-Chairman shall preside at all meetings of the Executive Council. In the absence of both, the Executive Council shall elect from among themselves a Chairman for the meeting.
- (e) The General Secretary shall keep the Minutes of the meetings, issue notices for them and circulate among the Members the memoranda of business before the meeting and transact all other work not inconsistent with the aims and objects of the ASSOCIATION, under the direction, control and guidance of the Executive Council.
- (f) It shall be the business of the Executive Council to :
 1. Carry on the financial and administrative affairs of the ASSOCIATION as limited by the budgets passed at the annual General Meeting or as directed by a special Resolution of the General Body.
 2. Prepare and submit to the General Body for adoption the budgets for the ensuing year, the report of the preceding year together with the audited statement of Income and Expenditure.
 3. Recommend any alterations, additions or annulment of the Rules and Regulations of the ASSOCIATION.

4. Recommend any acquisition of movable and immovable property or of legal interest in such property for fulfilling the objects of the ASSOCIATION.
 5. Enter into any contract, agreement or legal binding necessary for the fulfilment of the objects of the ASSOCIATION, and
 6. To do all such other things in accordance with the requirements of the ASSOCIATION as they arise.
- (g) It shall be the duty of the Associate Secretary to popularise and promote the work of the ASSOCIATION in consultation with the Chairman and General Secretary and to render such assistance to the General Secretary as may be required by him from time to time.
- (h) It shall be the duty of the Editor of Publications to receive papers, monographs, dissertations, and books for publication by Members of the Association, and to arrange for their publication in consultation with the Publication Committee to be constituted as follows :
1. Chairman of the Executive Council
 2. Editor of Publications, and
 - 3-4. Two Members coopted by the Executive Council.

VIII. Funds of the Association :

- (a) The funds of the ASSOCIATION, received from time to time, shall be deposited in a scheduled Bank, in the joint names of the General Secretary and the Treasurer on behalf of the ASSOCIATION.
- (b) The General Secretary shall receive all money on behalf of the Association and send it to the Bank as early as possible after receipt. He shall maintain a proper account of the funds of the Association and submit to the Executive Council a duly audited statement of account every month.
- (c) All bills of the Association shall be countersigned by the General Secretary and passed for payment by the Treasurer.
- (d) The General Secretary shall be authorised to draw a permanent advance of Rs. 100 to meet the current expenses of the Association.
- (e) All expenditure in excess of Rs. 20 shall be incurred by means of a cheque which shall be signed by the General Secretary and countersigned by the Treasurer.
- (f) A Reserve Fund of the ASSOCIATION shall be maintained, consisting of 25 per cent of the annual membership fees, and of all money received by way of Life Membership, Donation, Benefaction, Vice-Patronage or Patronage or through Endowments. This fund shall be invested in approved securities or as directed by the General Body, and the interest securing therefrom shall be placed at the disposal of the Executive Council for the promotion of the aims and objects of the Association. The General Body may also direct a part of this Reserve Fund for publication and other activities which may be considered essential for the fulfilment of the objects of the ASSOCIATION.

IX. Publications :

- (a) The ASSOCIATION shall, in the first instance, publish an annual volume containing summaries of papers submitted by Members and other distinguished scholars, a bibliography of research published by Members together with the Annual Report and Accounts of the Association, entitled the Transactions and Proceedings of the INDIAN PHILOLOGICAL ASSOCIATION. Every Member will be entitled to receive *gratis* a copy of this publication.
- (b) The Executive Council may, if they consider it proper, decide to conduct a Journal or publish monographs, dissertations, books etc. as recommended by the Publication Committee, provided always that the necessary funds are available. In all such matters the decision of the Executive Council (by a plurality of votes) shall be final.

- (c) The sale proceeds of such publications shall be credited to a special Publication Fund of the ASSOCIATION which shall be applied to the promotion of such publication activities as the Publication Committee may consider essential and recommend to the Executive Council.

ELECTION RULES

1. Before the 7th of April in which the elections are to take place, the General Secretary shall prepare a classified list of the Members of the ASSOCIATION as they stand on 31st March of that year, along with their permanent address and place of residence as they stand in the records of the ASSOCIATION.
2. A printed copy of this list shall be sent to the Members of the Association along with a nomination paper for nominating 12 Members to the Executive Council, as also a list of the Members of the outgoing Executive Council and the number of meetings attended by them. Of the 12 Members nominated 8 at least shall be residents of Poona. These papers should be posted to the Members not later than the 30th April.
3. The nomination forms duly filled in and signed by two Members of the Association shall be sent so as to reach the General Secretary before 15th May of that year.
4. The General Secretary shall prepare a list of all the duly nominated Members and send it to the Members for recording their votes on the 25th of May.
5. Voting papers should reach the General Secretary before the 10th of June.
6. The Executive Council shall appoint two scrutineers to scrutinize the voting papers and declare the results.
7. The first twelve Members on the list shall be declared to have been elected to the Executive Council and notified before the 13th of June. The results of the Election shall be communicated to the members elected. If any Member intimates his inability to work as a Member of the Executive Council, the name of the candidate who has secured the next highest number of votes shall be declared to have been elected.
8. The first meeting of the Executive Council shall be convened in July, some time before the time fixed for the meeting of the General Body, invitations for the same being issued with due notice according to the Rules and Regulations of the ASSOCIATION.
9. The new Executive Council shall elect at its first meeting the Chairman, Vice-Chairman, General Secretary, Associate Secretary, Treasurer and Editor of Publications, the voting in each case being by ballot.
10. The retiring Council shall hand over to the new Council charge of its office at the first meeting, after the Office-bearers mentioned in clause 9 above have been elected.

MISCELLANEA

AN ACCOUNT OF FOUR WONDERFUL EIGHTFOLD TALENTED PERSONS (अष्टावधानीस)

From very ancient times in India, there has been practice of giving a demonstration of individual powers of strong memory and strong intellect. Such demonstrations go by the name of *avadhāna* (attention). That means, listening to many things at one and the same time, and either replying to them, or doing according to them, after some time simultaneously. For example, solving examples in addition, subtraction, multiplication, division, square-root, cube root correctly ; playing at cards and defeating the other side, playing chess, and at the same time correctly giving the number of strokes on the bell and stating how many times in all the bell was rung ; correctly reciting poems in the original language (the original order may be changed), even if the person has no knowledge of the language ; giving the word for which a particular number stood or *vice versa*, discussing on any scientific subject, completing couplets of which the first part is given, and composing a poem wherein blanks are filled with certain words in a particular manner.

The original meaning of the word '*avadhāna*' is 'attention.' But it has come to mean, attending to several things at the same time by the secondary meaning (*lakṣyārtha-lakṣaṇā*). Really from the point of logic, as mind is an atom, it can concentrate on one thing at one time. It has no power of being directed to several things at one and the same time. Still, its movement is so quick that it appears to concentrate itself on several things at the same time just as the top appears to stand still even though it is rotating around itself and a lighted fragrant stick (*udabatti*) appears like a lighted wheel of fire if it is turned round in the dark. But, there is really no wheel ; but due to motion it appears like a wheel. Similarly the mind goes to several things very quickly and appears to attend to several things at the same time. These *Avadhānis* are divided into two classes by experts, those that can attend to eight things at the same time are called eight-fold talented persons (*aṣṭāvadhānis*) and persons who can attend from eleven to a hundred things are called *śatāvadhānis*.

Such *Avadhānis* are rare and their wonderful demonstrations are, therefore, rarely met with. Those, however, who have had opportunities of seeing them will bear testimony to what I have stated here. In this article I have given an account of four *Avadhānis* and their demonstrations, which I happened to see in the course of my life. I have not exaggerated anything therein. I have specially written this article for people who have had no opportunity of seeing such demonstrations. My object in doing so is to bring to light a few exceptional gems that were born in India.

In the course of my life, as I stated before, I saw four *Avadhānis* and their demonstrations. I give below their names in the order in which I saw them :—(1) शीघ्रकवि तार्किक पण्डित श्री Rangacharya SHASTRI in 1882. (2) श्री Atmarampant Sukhatme SATARKAR in 1890 (3) शीघ्रकवि तार्किक पण्डित गट्टलाल गोस्वामी in 1875 (4) पण्डित कवि श्रीनिवासाचार्य शास्त्री in 1920. Though this is the order in which I saw their programmes, I have arranged them below as 2.4.1 and 3, considering the importance of their programmes.

In Bombay, the late Mr. K. T. TELANG (Justice) and other learned men of his time had started an association called 'The Hindu Union Club.' Its object was to bring together learned men of the Deccan in the evening and give scope for recreation and discussion. The association had among its members, learned men of the time like, Mr. Narayan Vishnu BAPAT, the Curator ; Mr. Mahadeo Chimanji APTE, the High Court Vakil, Mr. Ganesh Ramchandra KIRLOSKAR, the High Court Vakil, and Sir Bhalachandra Krishna BHATAVADEKAR. I was also a young member of that association. If any Kirtanakāra or a musician happened to come there, he was given scope for his performance and he was properly honoured. In 1890, Mr. Atmarampant SUKHATME, an eightfold-talented person from Satara, happened to come there. He was then 49 or 50 years old. I was present at the time when a programme of his was arranged in the Hindu Union Club. Mr. SUKHATME was not a Sanskrit scholar. At the outset he merely listened to eight or ten questions given by the audience regarding multiplication, division, square-root & cube-root. All these examples, he was slowly solving

within himself by dint of his memory without having recourse to slate or paper while being engaged in playing at cards and chess. Similarly, while the game was going on, one man was ringing the bell ten to fifteen times, and every time he gave as many strokes as he pleased. Mr. Atmarampant won the game he was playing, gave correct solutions to the arithmetical problems, and also stated the number of times the bell had been rung and the number of strokes given every time and the total number of strokes too. The audience was greatly astonished to see the strong retentive powers of Mr. SUKHATME. It has become rare to find such demonstrations. I am sure that any one of the members now alive will be able to bear witness to this fact. This is one example of the powers of retentive memory.

In 1920, I went to Mysore for the Dasara celebrations. There, through the influence of my respected friends Maha Vaiyakarāṇa Kashi Venkatachal SHASTRI Dharmadhikari, I got an opportunity of seeing a second demonstration of the same sort. This took place in the presence of the Swami of *Parakāṣṇa* of Ramanuja school of Mysore. The gentleman belongs to the state of Gadwal in Hyderabad (Deccan). This gentleman was both a learned man and a poet and was about 35 years old. The peculiarity of his *avadhāna* was that he could compose Sanskrit poems in particular metres on particular subjects. He asked about 20 learned Sanskritists to sit in two rows of ten each and kept some room for himself to move up and down between the rows. Then he went to the gentlemen of both the rows and requested them to give the subjects and metres in which they wanted the verses to be composed. There everyone according to his liking gave out the names of the metres as *Sragdharā Śārdūlavikrīḍita*, *Sikharīṇi*, *Vasantatilakā*, *Drutavilambita*, *Āryā* etc. The subjects chosen were praises of devatās like Śiva, Viṣṇu and the virtuous, and censure of the wicked. The *Avadhāni* Pandit did not make any note of either the metre or the subject, but retained everything in his memory and began to reply. He began to move about the gentlemen in the two rows in turn and every time he requested each one of them to write down three or four words of his particular line or metre or verse. In this way moving about the rows eight or ten times he at last gave every one the verse in the particular subject and metre as desired by him. And it was noticed that they tallied with the questions that were asked. All this was done by him in the course of about an hour and a half. Let intelligent readers consider how wonderful a thing it is for a man to compose 20 poems in twenty different metres and on twenty different subjects as desired by twenty different men without the help of any notes or writing, but only on the strength of his retentive memory and intelligence. If any of my readers has seen any such performance he will be reminded of it.

I shall now narrate the account of a *Satāvadhāni* (a hundred-fold talented person). In 1877, when I went to Bombay for the Matriculation Examination, a well known *Satāvadhāni* from the Deccan, Pandit Sheeghrakavi Pandit RANGACHARYA Shastri was staying with the then well-known High Court pleader of Bombay Mr. Shamarao Vithal KAIKINI. But I did not get an opportunity of seeing his performances. My respected eldest brother, the late lamented Purushottamrao TELANG saw his performance. Mr. Purushottamrao requested him to compose a *Thumari* in Sanskrit on the model of '*kona kona guna gāvo*' in *Kauśiyyā-Rāga*. Thereupon immediately he composed a Sanskrit *thumari* as follows.

“कोन गानरस आदरी जने

कोमल मानस कलित सभाजने ॥ ४ ॥ (अंतरा)

सारसारतर सारत मादर, तरतमताकर भान भाजने ॥ १ ॥

Intelligent readers will see clearly that the subject of the *thumari* is music and there are no conjunct consonants and that the composition is sweet and soft.

As I had to return to Karwar immediately, I was sorry not to have been able to see the performance of Shri RANGACHARYA. But God's ways are unfathomable. It is our experience that sometimes the things which we consider to be impossible do really take place easily after some time. The same thing happened with regard to the performance of Shri RANGACHARYA.

Mr. Purushottamrao TELANG was very fond of Music; and he had studied it under the well known musicians of that time like TANRASKHAN. He toured in the Deccan to find out the system of music prevailing there. He took me with him. We went to Cannanore, Telli-

cheri and Calicut and from there went to Coimbatore and stayed there for four days. Then Mr. Purushottamrao remembered that Mettupalayam, the place of the Hundred fold talented RANGACHARYA Shastri was situated in the Karoor district nearby. Finding that a golden opportunity presented itself of seeing that learned Pandit, Purushottamrao started with me in the morning from Coimbatore. In the evening we reached Mettupalayam. At that time Shri RANGACHARYA was at home. He was very glad to see Purushottamrao and inquired the cause of our coming there. Purushottamrao pointed to me and said that I was his younger brother and very fond of Sanskrit learning and he had specially brought me for his darshan. Then we had a chat and took rest. The next day we requested Rangacharya to give a demonstration of his *Satāvadhāna*. He consented but said that he felt inspired if he had at least 15 to 20 questions. Still he said he would do it and sat down on his verandah and four of us including Mr. Purushottamrao, the disciples of Shri RANGACHARYA and myself undertook the work of questioning. Purushottamrao asked him four questions one in multiplication, one in division, one in addition of 4 to 5 figures, and a magic square containing 16 squares giving the same total from whichever side the figures were added. I gave him two different lines from *Vikramāṅkadevacarita* of Bhillapa and requested him to compose a Liṅgabandha in which the line *Śrī-Raṅga-kavaye namaḥ* would be in the centre. One of his disciples gave him a line to be completed and undertook to ask him questions on grammar. His other disciple gave him another line for completion and undertook to ask him questions on logic.

As there were only 7 or 8 houses of Brahmins in that village, and as every one had gone out, we could not get any more questioners. Thus we gave him in all 11 questions to answer. With regard to my question he said that if he composed a poem as desired by me with the lines *Śrī-Raṅga-kavaye namaḥ* he would be flattering himself. To this I jocularly replied, that if he did not compose the poem as desired, it meant that he was unable to compose it. Then began his performance. He listened to our questions as he was talking with us, and without keeping any notes remembered all our 11 questions and told us every time some figures of the answer in turn. Thus he answered all our questions without any mistake. I had noted down the *ślokas* which he had completed. It being 58 years since this took place, my note has been misplaced and lost. Hence I regret that I cannot give all the *ślokas* here. But I have committed to memory only that Liṅgabandha *śloka*.

श्री श्रीरंगार्यतुंगत्वे विवादो न कथंचन
यदयं वदतां मौलि प्रायेष्ट कवनक्षमः ॥

			श्री			
		गा	रं	श्री		
	र्य	तुं	ग	त्वे	वि	
न	च	थं	क	न	दो	वा
य	द	यं	व	द	तां	मौ
	क	ष्ट	थे	प्रा	लि	
	व	न	क्ष			
		मः				

I have given above the figure of Liṅgabandha composed by Shri RANGACHARYA, wherein we find the letters *Śrī-Raṅga-kavaye namaḥ* in the centre. Let the readers judge of his unmatched power of understanding and his power of quick composition. This cannot be expressed in words.

This talented poet had gone to Nasik, Kashi and Calcutta in 1877-78, when the people appreciated his work and awarded medals and armlets to him. In Nasik, shastris and pandits arranged a performance of his *avadhāna* and gave him three lines of a verse asking him to complete it with the fourth. The three lines are as follows :—

गुरुर्ब्रह्मा गुरुर्विष्णुर्यरता यान्ति लघवम्
अथ शिक्षां प्रवक्ष्यामि × × × × ×

All these three parts are from three different sciences. The first part is from Smṛti, the second part is from the science of metre. The third is from Śikṣā of Pāṇini. There is no connection between the parts and their meaning. But unrivalled talented Shri RANGACHARYA completed the fourth part by adding the following :—*mā kadūḥi yaśaḥ smara* meaning—Never care for fame. The *ya* in *yaratā* means fame and the *śloka* reads as follows :—

गुरुर्ब्रह्मा गुरुर्विष्णुर्यरता यान्ति लघवम्
अथ शिक्षां प्रवक्ष्यामि मा कदापि यशः स्मर ॥

Meaning :—Brahma and Viṣṇu became great (because they never cared for fame.) Those who are after fame become little in the world. Therefore I advise you never to fix your attention on fame. I leave it to the readers to judge his unrivalled understanding and presence of mind.

I shall now place before the readers another example of the way in which a difficult verse was completed by Shri RANGACHARYA. In 1878 Shri RANGACHARYA went to Kashi. There the learned people of the place arranged a public performance of his *avadhāna*. The late Bala Shastri RANADE was one of them. He gave him a part of a poem composed by himself. The meaning of this part is—‘A cat ate Śiva.’ Then Shri RANGACHARYA completed the verse in the following way :—

पयःसिक्तं बिडालेन
लीढं लिङ्गं विलोकयन्
बालो वदति हे मातर-
ओतुना भक्षितः शिवः ॥

Its meaning is, The child says to the mother “the cat ate Śiva, when he saw the cat licking the Śiva-liṅga besmeared with milk.” This difficult poem was completed by means of his natural gift of intelligence. Not only that, but he also gave a taunt to Bala SHASTRI by inserting the words “*bālo vadati*.” I came to know this from Acharya Mahadeo SHASTRI in 1928, when I went to Kashi.

When I met Shri RANGACHARYA in 1882, he was about 48-49 years of age and I am sorry that I did not note down any information about him. It is not possible now to obtain any information as to whether he has composed any poems or written any books in or about 1877-78. It is said that there appeared in the *Daily Times of India* an account of the extraordinary performance of Shri SHRIRANGACHARYA.

Now I shall narrate an account of the extraordinary performance of the fourth man. There lived in Bombay in the year 1896, the poet Sighrakavi Pandit Govardhan Sharma GAṬṬĀLJI.

He had become blind due to an attack of small-pox. But as his intelligence was very sharp, his father Pandit Ghanashyam Sharma taught him Sanskrit.

GAṬṬĀLJI had a very retentive memory and could reproduce anything after once hearing it. Besides he was extraordinarily intelligent. He studied grammar, poetry, logic

and Vedānta, and attained proficiency in them even though he was blind. Thus he became a Śighrakavi. Later on, he became a hundredfold talented man. When he went to Kashi, the shastris and pandits there did honour to him. A life-sketch of his written by Vinayak Kondadeo OAK, appeared in "*Balbodh*", a Marathi magazine published by the Nirnaya Sagara press. I recommend it to the readers for perusal as I cannot give it here for want of space.

So much about the history of Śighrakavi Pandit GAṬṬĪLĀLJI. Now I shall place before the readers an account of the extraordinary performance that I saw of his *avadhāna*. When I was serving in the High Court at Bombay, I was on intimate terms with the then popular doctor, Sir Bhalachandra Krishna BHATAVADEKAR. In September 1895, the Head of the Vallabhāchārya sect of Bombay, Shriyut Devaki Nandana Maharaj specially invited Dr. Bhalachandrarao to a performance of Pandit GAṬṬĪLĀLJI which he had arranged at his place near Madhavabag at 8-30 P.M. At that time the brother of the doctor, Vishnu Krishna BHATAVADEKAR, and myself went to see the performance. The performance was held in the extensive hall of the Mahārāj and about twenty to twenty-five people had assembled to see the performance. At the outset Pandit GAṬṬĪLĀLJI gave a brief description of what *Avadhāna* is. He told the people assembled, that they could write on a piece of paper poems or verses from 10 to 11 languages and that they could give serial numbers to every word in the verse. Then the gentlemen present wrote down on their papers verses, in the language they liked and gave numbers to every word. The verses were in Sanskrit, Hindi, Gujarathi, Sindhi, Marathi, Kannaḍa, Telugu, Tamil, English, French and Latin, in all eleven languages, and they were serially arranged and the Pandit learnt the number of words in every poem. Then the Pandit asked them to give the poems in Hindi, Gujarathi and Sanskrit for completion. At that time two gentlemen gave him the parts of the verses in Hindi and Gujarathi. I gave him a part of a Sanskrit verse composed by myself which was contradictory in terms in everyday life. It was like this :

अहो चित्रं सिंहः शशकश्चिनुना संप्रति हतः

The pandit remembered all this. Now the words in the poems in eleven different languages noted above were to be in a strange order leaving the original serial order. At that time we were to tell the Pandit one word at a time in the serial order in which he had given them. Then it was the turn of those who wanted their lines to be completed. Afterwards it was the turn of those who wanted the scientific subjects to be discussed and lastly it was the turn of those who were to ring the bell. In this order, questions began to be asked. Every one got as many turns as there were words in each śloka. Soon after the words, whose number had been given before, were over, the Pandit told him that his verse was completed. He then recited the poem. It did not matter whether he knew the language or not. Thus soon after the words in the poems were over, he recited the poems to every one. In short, when the questioners gave words in their ślokas in a different order he remembered and filled them in and then recited the whole śloka, in languages of which he knew nothing i.e. Kannaḍa, Sindhi, English, French and Latin; even in these languages he recited the poem of which 18-20 words were once given. This gives an idea of his extraordinary power of memory. I cannot describe it. He completed the pieces of poems given to him in some turns after giving one or two words every time. Before completing the poem which I had given him he said to me, "This has been given to me because it is difficult. But I shall complete it from the story of the Hare and the Lion from *Pañcatantra*." I wrote down the śloka he gave me. But this was 45 years ago. Unfortunately that paper is lost. But I remember the moral of it, and it is this. Wise men say that "Physical strength is not real strength. But the power of intelligence is the real strength." It is thus that this strange thing took place, namely, that the young one of a hare killed a lion. I never thought at the time when I composed the piece that Panditji would complete the poem with the help of this story. One can realise the strong power of understanding and the presence of mind of Panditji from this. When this performance of *avadhāna* was going on he was also in turn giving the answers to the questions in grammar and science.

After all this was over, he told the audience exactly how many times the bell had been rung during the performance and how many strokes had been given every time.

This being over, he also gave a performance of *naṣṭouddiṣṭa* i.e. 'if a certain word is lost, one has to find it out with the help of the preceding and succeeding words to which serial numbers have been given. *Uddiṣṭa* means—if one word from a verse is given, the serial number given to it is to be told immediately. He told those who had given him verses to put questions in both the above ways and he said that he would give the answers immediately. Eleven of us began to ask him questions of both the sorts and Panditji gave correct answers immediately. This went on for five minutes. Panditji said that he could remember the *ślokas* and the serial number for three days.—In this way I have given an account of the extraordinary power of his memory.

I shall now describe what I saw of his inconceivable power of intelligence and his quick power of composition. Panditji said that he would give a performance of what is called in Sanskrit *śighrakavi* and *ghaṭikāśata*. It means to speak in poetry a hundred verses in 24 minutes. He requested the audience to give him a subject to enable him to show the miracle. The audience asked me to suggest the subject. At that time it was an autumnal night. Hence, taking this into consideration I suggested *Saranniśāvarṇana* (the description of an autumnal night) as the subject. On this, the Panditji eagerly said, "This subject is really inspiring to the poets. The gentleman who suggested this subject and gave *aho citram simhaḥ*, etc. for completion must really be romantic. Please let him see me." He could not recognise me because he was blind. Then Sir Bhalachandra introduced me to him as a student of Sanskrit language and that I was serving in the High Court. On this, the Panditji requested me to see him often.

Then the Pandit began to describe the autumnal night in Anuṣṭubh metre. He spoke for six minutes at a rate of 4 *ślokas* per minute. It was not possible for us to note down the verses. I was only noting the number of verses. The verses which the Pandit recited in a distinct and clear voice were like those of the great poets in sound, figure, etc.

He used to quote the authority in grammar for the constructions he had used. Thus composing 24 *ślokas* in six minutes, i.e. composing at the rate of 96 *ślokas* in 24 minutes, he completed the *ghaṭikāśata*. Then Panditji said, "I recited these *ślokas* according to the best science of composition befitting a poetic subject. But if an ordinary subject is given I can compose six verses in one minute i.e., 144 *ślokas* in one *ghaṭikā* (24 minutes). Please therefore give me another subject." Then I gave him the subject. "The story of *Rāmāyaṇa*." Then Panditji began to recite the poems in Anuṣṭubh metre. He described something about the importance of the *Rāmāyaṇa* and then he described the Sage Vālmīki. At this time he was composing 6 verses per minute in a clear and forceful manner. At this rate he took *ghaṭikāśata* to *ghaṭikāśārdhaśata* (150 verses in one *ghaṭikā*). The audience was wonderstruck to see this extraordinary power of composition. No doubt there were some Pandits ere this, who could compose such *ghaṭikāśatas* but in ancient times there was no practice of writing out the history of our literature. Hence, we rarely find special mention of them anywhere.

Lastly, I conclude this article by saying that it is the duty of the future generation to pay proper respect to such *Aṣṭāvadhānis* and also to study the several serious, thought-provoking works in Sanskrit written by the sages, preceptors, Shastris and Pandits in India in Grammar, Nyāya, Alankāra, Mīmāṃsā, Vaidyaka, (medicine), Astrology (jyotiṣa) and other subjects.

Karwar.

MANGESHRAO RAMAKRISHNA TELANG.

A SHORT NOTE ON DARDO-PAHARI PARALLEL TO DRAVIDIAN¹

We have discussed already the problem of the demonstrative 'U' element in Dravidian.² I wish to point out that this distinction seems to permeate the entire system of most of the languages spoken in Kashmir. These facts have been already discussed by scholars. For instance, GRIERSON (*Linguistic Survey of India*, Volume on Dardic, pp. 280 ff.) mentions the following pronouns in Kashmiri :—

huh "that (within sight)" (corresponding to Dravidian 'intermediate').
a "that (within sight)" (corresponding to Dravidian 'intermediate').
suh "that (not within sight)" (corresponding to Dravidian 'remote').
 Siddheshwar VARMA mentions³ the following neuter pronouns :—

Bhadarwāhī—

Un that (near).

t ε n that (distant).

He also mentions⁴ the following pronouns :—

Rudhārī—

u that (distant but visible).

tè he or that (distant but visible).

In his unpublished dictionaries the following entries occur :—

(a) *A glossary of the Bhalesi dialect* :—

o, pronoun, m.f. He or She (intermediate distance).

t ε, pronoun, m. f. he or she (remote).

(b) *A dictionary of the Bradarwāhī language* :—

u pronoun he or she (medium distance).

t Ê pronoun 3rd per. sing. m.f. and n that, he, she (remote).

(c) *A dictionary of the dialects of the Khaṣāli group* :—

ũ, pronoun m.f.n. sing. that (distant but visible to the speaker). Cf. t ε, Bhaḍ u, Bhaḍ o. R U.

t ê, pronoun m.f.n. sing. that (remote and invisible to the speaker). Cf. Bhaḍ, Bhaḍ t Ê t ε.

It may not be a mere coincidence that the Dardo-Pahārī intermediate use of u should agree with that of Dravidian. The problem has yet to be fully investigated by the dialect geographer.

Poona.

C. R. SANKARAN.

1. This note is based on the correspondence I have been carrying with Prof. Dr. Siddheshwar VARMA on the subject. I am grateful to him for placing in my hands the materials contained in his unpublished dictionaries.

2. *Indian Linguistics* 1939, pp. 242 ff.

PRINCIPAL VAIJANATH KASHINATH RAJAWADE M. A.

1859—1944.

In the account of the Silver Jubilee of the Bhandarkar Oriental Research Institute published in the *New Indian Antiquary* (January 1943, pp 235-240), a reference was made to the planting of a *Vaṭa* tree to the west of the Institute building on 4th January 1943 at the hands of Principal V. K. RAJAWADE, the veteran Vedic scholar and the Chairman of the First Executive Board of the Institute. Little did we dream that this octogenarian friend of the Institute to whose stern sense of duty and discipline, not to say his fearless integrity of character, the Institute owes much of its healthy growth, would pass away within two years! The *Vaṭa* tree planted by him on the grounds of the Institute will remain as a symbol of RAJAWADE's holy character and learning, which he maintained to the moment of his death on 17th December 1944 (4-30 P. M.) at all costs. In spite of all domestic bereavements culminating in the premature demise of his brilliant eldest son *Prof. C V. RAJAWADE* in 1920, Principal Rajawade maintained his *dharma* intact by continuing his *adhyayana* and *adhyāpana* throughout his long life of 85 years. The feelings of reverence and admiration generated by this self-less devotee of *Sarasvatī* in the minds of his pupils and contemporaries found spontaneous expression on the occasion of a public function held at the Fergusson College early in 1939, when RAJAWADE completed his 80th year and was publicly honoured by all the educational and learned bodies of Poona.

Principal RAJAWADE was the elder brother of the great Mahārāshṭra historian Vishvanath K. RAJAWADE. He was born at Varsai near Pen in the Kolaba District of the Bombay Presidency in 1859. After his early education he entered the Matriculation class of the New English School of the D. E. Society started by the great patriots Messrs. CHIPLUNKAR, TILAK and AGARKAR and stood very high in the Matriculation examination, which he passed in the very first year of his joining the above class in the N. E. School. The late Mr. Hari Narayan APTE, the brilliant and popular novelist of Mahārāshṭra was his fellow-student and continued to be his life-long friend. RAJAWADE completed his college education in the Deccan College, Poona, and the Wilson College, Bombay. In his previous Examination he got the highest number of marks in Sanskrit and was awarded the Varajivandās scholarship. He passed his B. A. examination with a first class in 1882 and his M. A. in English and Sanskrit in 1883 in the second class. He lost his First class at the M. A. owing to a serious difference of opinion between him and his revered guru and examiner Sir R. G. BHANDARKAR. For some years RAJAWADE refused to accept the M. A. degree but owing to the intercession of friends he accepted it later without any grudge towards his guru. In fact Sir R. G. BHANDARKAR had a very high appreciation of RAJAWADE's character and scholarship and RAJAWADE in his turn entertained throughout his life a deep reverence for his guru as will be seen from his dedication of his *Words in Rgveda* Vol. I (1932) to Sir R. G. BHANDARKAR.

Shortly afterwards he accepted the offer of the post of Professor of English in the Dayaram Jethmal Sind Arts College, then started at Karachi, which he served creditably for about 8/9 years and established his reputation by his deep study of English language and literature. His scrupulous study of English pronunciation and accent has become proverbial among his students even to this day. In 1895 he came back to Poona in response to the request of the late Hon'ble Gopal Krishna GOKHALE, the founder of the Servants of India Society. It was a great sacrifice on the part of Prof. RAJAWADE to resign a highly paid job and throw in his lot with a band of self-sacrificing educationists of the D. E. Society but to RAJAWADE no sacrifice was too great in serving the cause of education and learning. He accordingly joined the D. E. Society and served it loyally and creditably. He was the Secretary of the D. E. Society for the period 1898—1904 and the Superintendent of its New English School from 1907 to 1913. The writer of this note was the pupil of Prin. RAJAWADE from 1907 to 1914 and his early impressions of the scholarship and noble

character of Principal Rajawade were confirmed and deepened by his subsequent almost unbroken contact with this revered Āchārya during the last 37 years. RAJAWADE retired from the Society's service in 1914 owing to weak eyesight after a brilliant and memorable service of about 20 years at a time when the Society was passing through critical stages of its history consequent upon political unrest in Mahārāshtra, if not in the whole of India. In the year 1917—18 RAJAWADE's services were availed of by the late Dr. S. V. KETKAR in connection with his work of the Marathi Encyclopaedia the *Jñānaśa*. The death of his eldest son Prof. C. V. RAJAWADE, Professor of Pali in the Baroda College which took place in 1920 was a bolt from the blue to Principal RAJAWADE at a critical juncture in his life when RAJAWADE could have taken a little rest after his early struggle for his own education and subsequent conscientious and arduous service of two decades in the D. E. Society as Professor of English and Sanskrit and in other capacities. Circumstances compelled him, however, to accept the offer of the Principalship of the M. T. B. Arts College Surat for the period 1921—1925. Since 1925, RAJAWADE finally took leave of collegiate educational activities and merged his whole being in philological studies pertaining to the Vedic and allied literature.

Many of our Professors become almost extinct intellectually after retirement but RAJAWADE'S love of Sanskrit surged up after his retirement from the D. E. Society in 1914. He took a prominent part in the foundation of the Bhandarkar Oriental Research Institute and worked as one of the Vice-Presidents of the Working Committee of the Institute from 1915 to 1918. He was elected Chairman of the first Executive Board of the Institute from 1918—1921. During his regime as Chairman the Institute started all its major academic activities viz: (1) The Critical Edition of the Mahābhārata (2) The first Oriental Conference (3) The Govt. Oriental Series (4) The Annals of the Bhandarkar Institute and the like. He was a member of the Working Committee of the First Oriental Conference (1919) and President of its "Philology and Prakrit" section. He was at this time the superintendent of the Publication Department and in this capacity entrusted many important works for editing to competent scholars in the Govt. Oriental Series. He co-operated whole-heartedly with his colleagues the late Dr. P. D. GUNE, the Honorary Secretary of the Institute and the late Mr. N. B. UTGIKAR, the first General Editor of the Critical Edition of the Mahābhārata in securing donations and annual grants for the Mahābhārata work from the Government and the public. As a member of the first Mahābhārata Editorial Committee and its Chairman (1918—1924) he helped and encouraged the General Editor Mr. UTGIKAR to proceed with his arduous work undaunted but cautiously. Though Principal RAJAWADE was away from Poona between 1921 and 1925, the authorities of the Institute had the benefit of his advice and guidance in all important matters affecting the well-being of the Institute. In 1925 the late Dr. V. S. SUKTHANKAR was appointed by the Institute as General Editor of the Mahābhārata after the resignation of Mr. UTGIKAR in the previous year. He reorganised the Mahābhārata work and formed the Mahābhārata Editorial Board. Principal RAJAWADE was a member of this Board to the moment of his death. Long before the University of Bombay thought of Post-graduate instruction and research as their function, the Bhandarkar Institute started its post-graduate classes in 1927—28. Principal RAJAWADE lectured regularly to these classes in *Nirukta*, *Rgveda* and *Rkpratisākhya* for over six years in a purely honorary capacity like his learned colleagues. When the University of Bombay started its Post-graduate teaching scheme, according to which every teacher under the scheme had to apply for recognition as a post-graduate teacher, Principal RAJAWADE refused to apply for recognition and stopped his lectures to the disappointment of his students and the authorities of the Institute. Self-sacrifice and self-respect were the keynotes of Principal RAJAWADE'S character as revealed by his fearless attitude in exposing any injustice or malpractices which came to his notice.

In 1928, the *Vaidic Samshodhan Mandal* (Vedic Research Institute) was started in Poona with a view to carry on research in the Vedic field and publish critical editions of Vedic texts. No better scholar could be found to guide the work of this Institute than Principal RAJAWADE. He was elected President of this Institute unanimously and worked whole-heartedly with the editors of the critical Edition of the Rgveda projected by this Institute to the moment of his last illness. This edition, so nicely and carefully edited by Messrs. N. S. SONTAKKE and C. G. KASHIKAR, owes much to Rajawade's constant help and guidance. Unfortunately the octogenarian President of the Mandal has not lived to see the completion of its last Volume now in the press!

RAJAWADE published several articles in the *Annals* of the B. O. R. Institute on the *Meanings of Certain Words in the R̥gveda* between 1920 and 1930¹.

In 1932 he published his Volume of about 380 pages on *Words in R̥gveda Vol I*. At this time RAJAWADE was about 73 years old. Side by side with these philological studies RAJAWADE was working hard on his Edition of Yaska's *Nirukta* in the Govt. Oriental Series. His monumental labour on this Edition is enshrined in the first Volume of the Edition published by the B. O. R. Institute in 1940. It contains about 800 pages which are characteristic of the author's patience, independence of judgment and deep study of an abstruse text. With the weakening of his eyesight RAJAWADE's memory was growing stronger and he could remember every word in the R̥gveda and the *Nirukta* with amazing accuracy and expound it to the minutest detail. At a time when he could not recognize a face even at a close distance with the use of the thickest lenses of his spectacles, he carried on his reading and writing with a perseverance all his own. Between 1921 and 1926 RAJAWADE published an Edition of the *Nirukta* with Durga's Vṛtti and explanatory notes in Sanskrit in the *Anandāshram Sanskrit Series* comprising about 1538 pages. In 1935 the *Ichalkaranji Granthamālā* authorities brought out RAJAWADE's *Marathi Translation of Nirukta* containing about 1410 pages. It is dedicated most gratefully to Shrimant Narayanrao alias BABASAHEB GHORPADE, Chief Sahab of Ichalkaranji, the great patron of learning in Maharashtra, who passed away in October 1943. Up to the time of his last illness RAJAWADE was working on the Second Volume of the English translation of *Nirukta* in the Govt. Oriental Series, the first Volume of which was published by the B. O. R. Institute four years ago. Such in brief is the literary output of a scholar who retired at the age of 55 owing to failing eyesight and worked up to his 85th Year for a period of no less than 30 Years. Before such patience, love of learning for its own sake, herculean intellectual labour by a man of fragile health and advancing age we gape with wonder and admiration but do nothing seriously in spite of better facilities for research work and freedom from physical handicaps against which RAJAWADE struggled during his literary career.

Mere learning without character cannot command reverence. Principal RAJAWADE possessed in an eminent degree the unique combination of character and learning. His Highness the late Sayajirao Gaikwar, Maharaja of Baroda, had very great respect and admiration for RAJAWADE. It was the Maharaja's practice to invite his learned friends on his return to India after his European sojourns. RAJAWADE was one of these friends. The late Dr. V. S. SUKTHANKAR had the highest respect for RAJAWADE's erudition and character and when I suggested to him to arrange for the planting of a Vāta tree at the hands of Rajawade in the Silver Jubilee Programme of the B. O. R. Institute in 1943 I remember with what alacrity Dr. SUKTHANKAR noted down the suggestion in his diary and carried it out. After about a fortnight from the planting of the Vāta tree Dr. SUKTHANKAR passed away and when this sad news was conveyed by me to RAJAWADE he was deeply touched by a sense of profound sorrow and inquired about the age of Dr. SUKTHANKAR, which I told him was 56 years. At this, RAJAWADE observed that many of our younger scholars do not take to research work seriously and those who do so have to pay a very high cost. He further added that SUKTHANKAR's demise was an irreparable loss to the Mahābhārata work of the B. O. R. Institute but expressed his conviction that this national work to which SUKTHANKAR has brought such international reputation will be successfully completed by the Institute as it is the cynosure of all eyes at present. The old generation of scholars is fast passing away but their ideals and achievements will be a permanent beacon light to the generations to come.

P. K. GODE.

¹ Vide *Annals*, Vol I (pp. 45-47); II (pp. 109-133); III (pp. 113-127); VIII (pp. 398-418); IX (pp. 25-32); and X (pp. 147-152). Besides these studies I find Rajawade's article on "Reflections on the Amarakośa" in *Annals*, Vol VI (pp. 75-82) and another article on "Asurasya Māyā in the *Proceedings of the First Oriental Conference*, Poona, 1919, Vol II (pp. 1-19). Vide also *Journal of the B. B. R. A. Society*, New Series, Vol. III (Nos. 1 & 2) —pp. 231-234 contain Rajawade's article on "Indra's Enemies"; *Indian Historical Quarterly* Vol VI pp. 455-464 (article on ओकम्) and pp. 639-644 (article on महोकाः); *The R. G. Bhandarkar Commemoration Volume* pp. 325-338 (Article on Bhagavadgītā from grammatical and literary points of view).

OBITUARY NOTICES

TWO EMINENT PARSI PROFESSORS

On the 25th of November, 1944 two eminent Parsi Professors passed away. What is more remarkable, the date of their births was the same—10th October—though the years were different. The elder one was Professor Shahpurshah Hormusji Hodiwala, born in 1867, and the younger one was Professor Behramgore Tehmurasp Anklesaria born in 1873.

Professor Hodiwala was born at Surat and received his training in Navsari from where he matriculated in 1883. Joining the Elphinstone College, Bombay, he graduated in 1888 in the first class with history and Philosophy securing the James Taylor prize in History and standing second in the University. His second language was Persian. He took his M.A. in 1890 with English and Persian. He began his educational career as Dakshina Fellow in the Elphinstone College and was soon after appointed Professor at the Baroda College and later at the Wilson College, Bombay. In 1902 the Bahā-ud-Dīn College was founded at Junagadh and he was appointed there as Vice-Principal and Professor of History. In 1920 he became the Principal and retired in 1927. He settled down in the Bombay Suburbs where he was busy the whole time with his studies and his writing till within a few days of his passing away.

As a Teacher Professor Hodiwala was famous for the extreme accuracy of his lectures and the extremely lucid language he used. All his students are unanimous on these two points. He was a student of history of the most painstaking exactitude. He never uttered an opinion or made a statement unless he had the fullest authority for it. He once advised a friend to read continuously and intensively for fifteen years before taking up the pen. He seems to have followed that advice himself, for he has left very few writings behind him. There are three books he wrote and a few articles in learned magazines and journals. But what he has written is solid and likely to remain authoritative for many years to come. His three books are "Studies in Parsi History," "Studies in Indian Numismatics" and the first volume of "Studies in Indo-Muslim History". His splendid contributions to Indo-Muslim Numismatics were recognised by his being elected member of the Royal Numismatic Society. His work as a historian also received recognition when he was awarded the Campbell Medal of the Bombay Branch of the Royal Asiatic Society on the occasion of the 125th anniversary of its foundation. He has left behind, ready for printing, the second volume of the last-named Studies, and it is the fervent hope of all students of Indo-Muslim History that this volume will be printed and published as soon as practicable.

Though outwardly a man of a distant and somewhat forbidding appearance Prof. Hodiwala was a very fine personality. He was honest and straight speaking even to the point of brutality. He never hesitated to call a spade a spade. But to his friends he was always helpful and a most interesting and entertaining talker, full of accurate information and overflowing with good humour.

Mr. Anklesaria resembled Prof. Hodiwala in the extreme frankness and honesty of his speech and in the depth of his learning. Zoroastrian priestly lore was hereditary in his family and his father Ervad Tehmurasp Dinshahji Anklesaria was among the first of Parsi Iranists trained in modern critical methods. Born in 1873, he graduated in 1893 in English and Persian, and took his M.A. in 1898 in English and Avesta-Pahlavi, securing the Jamshedji N. Petit Avesta-Pahlavi Scholarship. Avesta-Pahlavi learning he inherited from his great father and by his zeal and steady work he attained the position of being one of the greatest authorities on Pahlavi in the world. He also was a scholar who would go to the root of the matter and would not venture to make a statement without fullest warrant. His whole life was dedicated to teaching and elucidating ancient Iranian and Zoroastrian writings. At first he did some work in the office of Messrs. Tata Sons and Co.'s but as soon as he found he could get on better without this, he gave it up and worked exclusively for the two Avesta-Pahlavi Madresas in Bombay. He was appointed a teacher in the Mulla Firoz Madresa in 1895 and in 1904 became its Principal. And in 1931 he was appointed Principal of the Sir Jamshedji Jijibhai Madresa also. He held both these posts till the end of his life.

He took keen interest in all questions relating to Zoroastrian Religious Belief and Ceremonials and he always gave his support to the progressive group among his co-religionists. He was an uncompromising opponent of all cant and hypocrisy. His writings and speeches on such topics were extremely outspoken in their language and often gave great offence and created trouble. But he cared little for what people said about himself. This won for him, however, the love and respect of a band of friends, who appreciated the sterling character behind a somewhat rough manner of speech.

His essays and miscellaneous writings (some of them most valuable contributions to scholarship) are very numerous and scattered through various newspapers and magazines during the last thirty years or so. It is very desirable that they be collected and properly edited in a handy form. He published numerous Pahlavi texts with critical introductions and notes. The more important among these are :

- (1) The Būdahish (a facsimile reprint from a MS. in possession of his father), 1908.
- (2) The Pahlavi Texts in Codex M. K. (in possession of the late Dastur Jāmāspji Minochehrji Jāmāsp-Āsānā, 1913.
- (3) Dastur Hoshang Memorial Volume, 1918.
- (4) Kāmāmā-i-Artakhshir-i Pāpakān, 1935.
- (5) Rivāyat-i-Hemūt-i-Asavahishtān.
- (6) Zartosht-Nāmā of Mobed Rustam Peshutan Howjiār (a Gujarati poem of about 1680 A.D.). This was published in 1932 and his wife has collaborated in this work.

All these show clearly his deep scholarship and his careful work.

He visited Iran twice, in 1930 and in 1934. The latter was by special invitation to the Firdawsī Millenary celebrations. On both occasions he delivered lectures which were published there.

He has left behind a number of completed and several incomplete works. Among these might be mentioned the full Text of the Pahlavi Vendidad together with a Translation and a new edition of the Gāthās with a translation. Both these works are of great importance and it is understood that arrangements are being made to publish them as soon as practicable.

Mr. Anklesaria was a fine personality, though there were numerous people whom he rubbed the wrong way. Still there were many friends with whom (in spite of differences of opinions) he maintained cordial relations to the very last. All these will remember him as a great scholar and a fine gentleman. That is the finest memorial any one could desire.

IRACH J. S. TARAPOREWALA.

REVIEWS

Descriptive Catalogue of Manuscripts in the Government Manuscript Library : Vol. XVI, part 1, compiled by Dr. Har Dutt SHARMA, M.A., PH.D. Vaidyaka, xxii, 418, Royal 8vo, Rs. 4. 1939. Vol. XIII, pt. II, Kāvya, compiled by Parashuram Krishna Gode, M.A. Royal 8 vo, xxii, 523 ; Rs. 6. 1942. Bhandarkar Oriental Research Institute, Poona. 4.

The publication of these descriptive catalogues of Mss. deposited at the Bhandarkar Oriental Research Institute is an event which has happily become a regular feature of that Institute's publications during recent years. The first volume under review, compiled by the late Dr. SHARMA, describes 320 Vaidyaka MSS. Of these as the lamented compiler indicates in his Preface, 41 are to be found only in this collection and nowhere else, so far as the information available to us shows. Despite the limitations imposed upon the compilers by the method of cataloguing the mss. the present compiler has shown his scholarly independence in the Preface by indicating the salient points of the particular collection of mss. It is a matter of regret that the learned compiler passed away before seeing the remaining volumes of his catalogue which are still in the press.

The second volume, compiled by the versatile Curator of the Institute, describes 401 Kāvya mss. It follows the model laid down for all volumes in this series, but bears ample evidence of the researches conducted by the Curator independently in the domain of Indian Chronology. Although Mr. GODE has done so much original work in this field it is a pity that he is handicapped by the format laid down, and prevented from giving valuable indications in the volumes themselves. We must, however, be thankful to the authorities of the Institute for the rapid progress which has been made in recent years in the publication of these very useful catalogues which are bound to encourage further research by drawing attention to the rich material awaiting investigation. We eagerly await the completion of this gigantic work which is expected to cover over 45 volumes of this size at least.

S. M. K.

Ātman in Pre-Upaniṣadic Vedic Literature, by H. G. NARHARI, M.A., M.LITT. (Adyar Library Series No. 47) Adyar Library, Adyar, Madras 1944. Pp. xlv + 278 ; size : 5½" × 8½" ; Price Rs. 8.

In this fascinating thesis approved for the degree of Master of Letters Mr. NARAHARI has presented an all-round picture of the nature of the *Ātman* as could be studied from the Vedic Saṁhitās. We fully endorse Dr. C. K. RAJA's remark in his learned Foreword : "The essence of right criticism is to understand a text by data supplied by the text itself, but not to import extraneous notions into it." This is the inductive method of criticism adopted by Mr. Narhari in his present painstaking research which aims to show that almost all the ideas that go to make the thought of the Upaniṣads have a definite back-ground in the Saṁhitās especially in the R̥gveda. Though the Vedic Saṁhitās presuppose a volume of philosophic thought we cannot definitely say what the Vedic philosophy was during the period preceding the Upaniṣads. There may be considerable difference in standard between the philosophy of the Upaniṣads and that prevailing in the earlier age but the difference is one of degree and not of kind. Such in brief is the thesis maintained by the author with elaborate documentation and cautious deductions from the data gathered from the Vedic Saṁhitās.

For the Indian mind the word "*Ātman*" has a great philosophic import coupled with the halo of sacred antiquity, deepened by its prolific usage in the Sanskrit literature for the last four thousand years. Mr. NARAHARI's present monograph on the *Ātman* looks like the coping stone on the great pyramid of Indian thought built by our ancient seers with more durable material than the monoliths of Egypt. If the Egyptian pyramids in stone excite wonder and admiration in the on-lookers, the pyramid of Indian thought, pre-Upaniṣadic or post-Upani-

śadic, has not failed in exciting wonder and admiration in the *in*-lookers either in the East or West. In fact the Indian pyramid has imparted its pose and stability to many an unsettled soul from the remotest antiquity upto the present day and will continue to do so even when the stone pyramids of Egypt disappear. The authorities of the Adyar Library, as curators of this Indian thought-pyramid now reflected in the innumerable publications of their series deserve our gratitude for including the present valuable monograph of Mr. Narahari in their Series. It will remain as a Souvenir of Mr. Narahari's work as Research Assistant in the Adyar Library for five years, though he is now working as a Research Fellow of the University of Madras. Mr. NARAHARI'S present work has once more endorsed the clarion-call of the Upaniṣads—

“ आत्मा वा अरे द्रष्टव्यः श्रोतव्यः मन्तव्यः निदिध्यासितव्यः ”

for the benefit of the modern readers and thinkers who will not fail to bless his further studies in Indian Philosophy and Religion.

P. K. GODE.

Deccan College Post-Graduate and Research Institute Calendar for Fifth Session (1943-44) by Dr. S. M. KATRE, M.A., PH.D. Director, D. C. P. and R. Institute, 10 Connaught Road, Poona 1 ; Pages 54 ; Price Re. One.

For private research bodies in this country planned research in any fields of Indology becomes difficult owing to financial vagaries and consequently their work is much handicapped. However, for research bodies conducted by Government or maintained mainly by endowments with steady annual income planned research is absolutely essential and the present *Calendar* of the newly revived Deccan College Institute which started its useful activities in 1939 shows at a glance how this unique research Institute of the Presidency with the goodwill of the old Deccan College and some of its illustrious past students has started planned research in the fields of (1) Indo-European Philology, (2) Dravidian Philology, (3) Semitic language and Literature, (4) Sanskrit Literature, (5) Proto-Indian and Ancient Indian History, Maratha History and (6) Sociology not to say its Series of Extension Lectures. The cause of research in Indology and allied subjects cannot flourish without a steady stream of finance either from the wealthy public or Government and we are happy to find the Research Institute now well established at Poona, with its historic past and academic future which is being shaped gradually by the pioneer work of the Bhandarkar Oriental Research Institute, the Bharata Itihasa Samshodhak Mandal and other institutions working in this field with commendable zeal in spite of financial vagaries.

If post-graduate research work has now become an ornament to our colleges it is the very foundation of the new Deccan College Research Institute and herein lies the academic strength of this research body. Rising merit must buoy up at last and the solid work, the foundations of which have been laid by the D. C. Research Institute by its sustained effort for the last four years must produce almost within a decade a body of young men who will put their shoulders to the wheel of Indology and give it added acceleration in the near future. The present *Calendar* shows admirably the springs of action of this time-piece of research so nicely set in motion by the Council of Management of the Institute and well oiled by the Deccan College Endowment administered by Government.

The *Calendar* contains general information concerning the Institute on such topics as its origin and history, the scope of research, aims and objects and the facilities provided by the Institute for the teaching of modern European and other languages. Then follows a consolidated report of the academic work of the Institute for the four sessions ending March 1943. Items in this report of special interest to other research scholars and institutions are :—(1) Five-year Plan of Research, (2)

Bulletin of the Institute now running its sixth Volume, (3) Museum, (4) Field-work and study in towns, (5) Gujarat Pre-historic Expedition, (6) Collection of MSS, (7) Major research projects of the Institute, (8) Instrumental Phonetics Laboratory, (9) Research work undertaken, (10) Publications by members of the staff, (11) Public, General and Extension Lectures, (12) Seminar Lectures, (13) Lectures by outside Scholars at the Institute and last but not least, (14) Publications by the Students of the Institute. These items fully illustrate the planning ability of the Director and his Colleagues and on such systematic planning and its rigid execution depends the academic reputation of the Institute. We, therefore, congratulate Dr. KATRE and his Colleagues Dr. H. D. SANKALIA and Dr. V. M. APTE for this planned research, which is already bearing fruit and which when completed will bring added reputation to the Institute and to Poona, the great intellectual centre of Mahārāṣṭra.

Public commitments have a disciplinary value both for individuals and institutions and the present *Calendar* is a public commitment especially with reference to the plans of research recorded within its pages. In a democratic age intellectual values in so far as they do not contribute to the immediate well-being of the individual or the state, dwindle into insignificance and unlettered critics consider it their birth-right to call into question the necessity of maintaining even our collegiate bodies at state expense. According to this extreme democratic standpoint research in any branch of knowledge is a luxury. Nothing can satisfy these critics but to those understanding few who care for the advancement of knowledge, research of any type has a definite place in any national planning for the betterment of the human race. Accordingly the educated people of Mahārāṣṭra look to the research work of the Deccan College with paternal solicitude and loving optimism which creates the necessary atmosphere for the execution of planned research of the type adumbrated in the present *Calendar*, an admirable periscope designed by Dr. KATRE for the use of his colleagues and collaborators, not to say the public at large.

P. K. GODE.

BHARATIYA VIDYA STUDIES : No. 1. *Bhāsa* by A. D. PUSALKER, M.A., PH.D., xiii, 224 Crown 8vo, 1943. Price Rs. 3. 2. *The Schools of Vedānta* by P. NAGARAJA RAO, M.A., viii, 132 Crown 8vo, 1943. Price Rs. 2.

The vigorous policy of publication initiated by the indefatigable President of the Bharatiya Vidya Bhavan of Bombay has resulted in the large number of accessions to Indological studies hailing from this province. Within the past six years Mr. MUNSHI and the Bhavan have launched upon several ambitious publication programmes which have not been confined to the members of the Bhavan only, and thereby helped to create a wider interest and a deeper appreciation of Indian culture. In pursuance of this policy the initiation of the Bharatiya Vidya Studies aims at providing different aspects of Indian culture in a form which should appeal to the ordinary reader.

1. The first of these volumes is deservedly devoted to the great *Bhāsa*, one of the earliest Indian playwrights. Dr. PUSALKER's earlier work with its array of footnotes and references was a PH.D. dissertation and made heavy reading to the ordinary scholar; but by publishing that monumental work he had carried forward the studies of his guru the late Dr. V. S. SUKTHANKAR and established for himself the right of speaking with authority on the vexed *Bhāsa* question. In the present study he has attempted to present in a popular style and readable form to the modern mind in the East as well as in the West the results of his evidently deep studies of *Bhāsa*. He has tried to clear the jungle of arguments bearing upon this vexed problem, and while generally one can appreciate the great effort which it must have cost the author to make the work presentable to the general reader, one also feels

the strain of making popular what is generally regarded as the preserve of specialists. This is particularly the case in the present work.

There are many points on which the author's summing up may be questioned, and particularly with the methodology adopted in arriving at the age of Bhāsa; this appears the least satisfactory part of the book, for it is possible with a slightly different arrangement of the evidence marshalled to bring down the age of Bhāsa by more than 1500 years. Leaving aside, however, such technical or methodological aspects, the book is eminently satisfactory for the purpose for which it has been written. It is clear, readable and enjoyable at the same time. It instructs while it pleases at the same time. It is divided into eight principal chapters entitled: Historical and Cultural Retrospect, Bhāsa and His Works, Plots of the Plays, Bhāsa's works: A Critical Appreciation, Bhāsa's India, The Bhāsa Problem and finally the Date of Bhāsa. The select bibliography and the Index make the reference practicable. The printing is good and the general get-up excellent. Dr. PUSALKER has done a difficult work extremely well and deserves the unstinted congratulations of all scholars for this first popular exposition of the great dramatist Bhāsa and for initiating the new series with such an excellent book. He has indeed set a very high standard for the other contributors to this series.

2. The second book is devoted to a modern study of the Schools of Vedānta and as Sir RADHAKRISHNAN explains in the Foreword, it is a spirited defence for the study of Philosophy. It is divided into nine chapters entitled: Science and Philosophy, Resumé of Indian Philosophy, the Philosophy of Śaṅkara, Advaita and the New Social Order, the Philosophy of Rāmānuja, the Philosophy of Madhva, the Upaniṣads, the Bhagavad-Gītā and the Vedānta Sūtras. An index makes the reference to topics dealt with extremely practicable. The young author shows a deep appreciation of both the East and the West, and like Sir RADHAKRISHNAN under whom he has been working, he has attempted to explain the East to the West in terms which the West can appreciate. We are glad to see that the plant nurtured by Sir Radhakrishnan in his many publications is to-day sheltering many aspiring philosophers and giving scope for a more fundamental union of spirit between the scientific enquiry of the West and the introspective synthesis of the East. This short but powerfully written book in simple and clear language amply justifies the claim made for it by Sir RADHAKRISHNAN as an introduction to the detailed study of the central features of the three systems of Philosophy associated with the three great Ācāryas, Śaṅkara, Rāmānuja and Madhva. We congratulate Mr. Nagaraja RAO on the inclusion of his book in this valuable series where it finds a fitting place. The general letter-press and the appearance of the book speak highly of the efficiency of the publication department of the Bhavan.

SOME NEW EVIDENCE FOR THE DATE OF THE LEXICON MEDINI (BETWEEN A.D. 1200 AND 1275)

By

P. K. GODE, Poona.

Prof. Rāmāvatāra Sarmā in his scholarly Introduction to the *Kalpadrūkoṣa*¹ has recorded the following facts bearing on the date of the lexicon *Medini* :—

- (1) Rāyamukūṭa (A.D. 1431) quotes *Medini*.
- (2) Padmanābhādatta, who wrote his *Prṣṭadārādivṛtti* in A.D. 1375, quotes *Medini* in his *Bhūriprayoga* as follows :—

“ विश्वप्रकाशमरकोषटीकात्रिकांशेषोऽज्ज्वलदत्तवृत्तिः ।

हारावलीमेदिनिकोषमन्यचालोक्य लक्षं लिखितं मयैतत् ॥ ”

(Vide p. 192a of Aufrecht's *Cata. of Oxford MSS*, 1864, where a MS of *Bhūriprayoga* is described).

- (3) Mallinātha (c. A.D. 1430)² quotes *Medini* on *Māgha* II, 65 as follows :—

“ इनः पत्न्यौ नृपार्कयोरिति मेदिनी ”

- (4) The *Mañkhaṭikā* contains a quotation from *Medini* (कमिति प्रकृत्यमस्तके च मुखेऽपिचेति अव्ययप्रकरणे मेदिनिः) which, if genuine, would push back *Medini*'s date to the 12th century for the *Mañkhaṭikā* was written before the last quarter of the 12th century.

Leaving aside the quotation from *Medini* in the *Mañkhaṭikā* composed before c. A.D. 1175 (last quarter of the 12th century) we may put *Medini* definitely between A.D. 1111, the date of *Viśvaṛkoṣa* mentioned as बहुदोष by *Medini* and A.D. 1275, the date of Padmanābhādatta, who quotes from *Medini* in his *Bhūriprayoga*.

Let us now see if we can go backwards from the definite later limit of A.D. 1375 for the date of the *Medini* lexicon.

In my article³ on the date of Cāritravardhana I have assigned him to the period A.D. 1172 and 1385. Prof. N. A. Gore of the S. P. College has drawn my attention to several quotations from *Medinā* found in the Commentary of Cāritravardhana on the *Meghadūta*⁴ of Kālidāsa. These quotations suggest the possibility of a date for *Medini* earlier than A.D. 1350 or so. Dr. A. B. Keith⁵ assigns *Medinikara* “to the fourteenth century.”

In view of the foregoing references to the date of *Medinikara* made by responsible scholars we must try to fix this date within exact limits so that the Chronology of many works which quote *Medinikara* would be definitely determined and I propose to record below some new evidence from a non-Sanskrit source which, if accepted, definitely pushes back the date of *Medini* lexicon before A.D. 1300.

Dr. S. K. Chatterji published his very learned paper on “The *Varna-ratnākara* of Jyotirīśvara Kaviśekharačārya” in the *Proceedings of the Fourth Oriental Conference*

1. Ed. in G. O. Series, Baroda, Vol. I, (1928) p. XL.

2. According to Dr. V. Raghavan Mallinātha composed a work called *Vaiśyavamaṣa-sudhākara* for Devarāya II of Vijayanagar (A.D. 1422-1466)—Vide pp. 111-117 of *New Indian Antiquary*, Vol. II.

3. Vide pp. 109-111 of *Annals (B. O. R. I.)* 1934, Vol. XV. It appears from Prof. Velankar's *Jinaratnakoṣa* that Cāritravardhana composed a work (सिन्दूर प्रकरटीका) in A.D. 1449 (Samvat 1505).

4. Vide *Meghadūta* (Kashi Sanskrit Series).

5. Vide p. 414 of *Sanskrit Literature*, 1928. Mr. Y. R. Date (Vide p. 27 of महाराष्ट्र-भाषाभ्यास-कोशरचनाशास्त्र व कोशवाङ्मय) in his remarks on *Medini* refers to Sir R. G. Bhandarkar's view about the date of *Medini* recorded on p. 13 of the Intro. to *मालतीमाधव* (B. S. Series, 1876). According to this view *Medini* belongs to the end of the 14th Century.

(Allahabad, 1928) Vol. II, 553-620. This paper is based on a MS of the *Vaṇṇa-ratnākara* on palm-leaf written in “ल. सं. ३८८” i.e. in the year 388 of the *Lakṣmaṇa Samvat* = A.D. 1507. This MS is preserved in the Library of the Royal Asiatic Society of Bengal (Govt. Collection—No. 48/34). The work *Vaṇṇa-ratnākara* is the oldest work in the Maithili language of North Bihar so far known. Speaking of the date of the author Dr. Chatterji makes the following observations :—

- (1) The author of the *V. R. (Vaṇṇa-ratnākara)* is a well-known figure in medieval or late Sanskrit Literature.
- (2) He wrote a *prahasana* or farce called the *Dhūrtasamāgama* and a work on erotics called the *Pañcasāyuka*. According to Mr. Manomohan Chakravarti our author wrote a work called *Raṅgaśekhara* J. A. S. B., 1915 p. 414, footnote).
- (3) According to Mr. Manomohan Chakravarti (J.A.S.B., 1915, pp. 407-433) our author was patronized by a King of the Kārṇāta dynasty of the name Hara-sinhadeva who ruled “during the first quarter of the 14th century” i.e. between A.D. 1300 and 1325.
- (4) Our author was a “Cousin of the grandfather of Vidyāpati (c. 1400).”
- (5) The period during which our author flourished was the golden age of Sanskrit Studies in Mithila of post-Mohammadan times.

Dr. Chatterji has recorded illustrative passages from the *Vaṇṇa-ratnākara*, which appears to be an encyclopaedic work like the *Mānasollāsa* in Sanskrit by Someśvara III, the Cālukya King of Mahārāṣṭra (A.D. 1127-1138). In the extract called भाट वर्णना (p. 585) which records the qualifications of a भाट or official bard of the Court, who was often a sort of ambassador to his king well-trained in all kinds of learning we are informed that he should be proficient in the knowledge of 18 lexicons⁶ viz. (1) धरणि, (2) विश्व, (3) व्यालि, (4) अमर नामलिङ्ग (5) अजय, (6) पद्म, (7) शाश्वत, (8) रुद्र, (9) उत्पलिनी, (10) मेदिनीकर (11) हारावली and others.

As the author of the *Vaṇṇa-ratnākara* who flourished between A.D. 1300 and 1325 mentions मेदिनीकर lexicon as a standard lexicon among the 18 *kośas* popular at the court of Mithila, we have reason to believe that *Medinikara* had attained some literary status and standing say by A.D. 1300. If this view is accepted we can safely push back the date of *Medinikara* before A.D. 1275 or so. As *Medinikara* mentions the *Viśvakośa* composed in A.D. 1111 and condemns it as “बहुदोष” we are warranted in supposing that *Medinikara* is removed from A.D. 1111 by about 100 years so that the date of *Medinikara* gets fixed up say between A.D. 1200 and 1275. In this way the reference to *Medinikara* in a Maithili work of c. 1320 A.D. enables us to take back the date of *Medinikara* from A.D. 1375 to 1275, a period of 100 years. This is no small achievement in the field of Indian Chronology, especially when scholars have failed to fix up the date of this much-cited lexicon during the last 75 years. Sir R. G. Bhandarkar discussed the date of *Medinī* in his celebrated edition of the *Mūlatimādhava* as early as 1876. He pointed out that Jagaddhara, the commentator of this drama, himself a Maithili author quotes *Medinī* several times and if the date of *Medinī* is fixed up it would help us to fix up the date of Jagaddhara. Unfortunately no Sanskrit source has yielded any definite evidence to determine the date of *Medinī* since 1876 and it was by mere chance that I happened to read Dr. S. K. Chatterji's scholarly paper on the *Vaṇṇa-ratnākara* published in 1928 and noticed the reference to *Medinikara* or *Medinī* in this early Maithili work of c. A.D. 1320 represented by a rare MS of A.D. 1507. I struggled in vain during the last 10 years to find any definite evidence for the date of *Medinī* as many dates of Sanskrit works are dependent on the date of *Medinī*. At long last, I believe, I have brought *Medinī* within very narrow limits viz. A.D. 1200-1275 or so. These limits harmonize with the following data bearing on the date of *Medinikara* :—

6. “धरणि विश्व व्यालि अमर नामलिङ्ग अजय पद्म शाश्वत रुद्र उत्पलिनी मेदिनीकर हारावली प्रभृति ये अष्टादह कोष तै व्युत्पन्न ।

- (1) *Vardhamāna*, a writer on dharmaśāstra, who flourished between A.D. 1450 and 1500 according to M. M. P. V. Kane⁷, quotes मेदिनीकर [Vide folios 12 and 13b of a MS of Vardhamāna's गङ्गाकृत्य विवेक in the British Museum described by Bendall—*Cata. of British Mus. Mss*, 1902, pp. 75-76)]. This British Museum MS of गङ्गाकृत्यविवेक by वर्धमान is dated *Lakṣmaṇa Samvat 378 = 1496*.
- (2) *Mallināthā* (c. A.D. 1430) mentions and quotes from *Medinī* on Māgha II, 65 as I have already pointed out.
- (3) *Rāyamukuta* (A.D. 1431) on Amara quotes *Medinī* several times.
- (4) *Padmanābhaddatta* (A.D. 1375) quotes *Medinī* in his *Bhūriprayoga*.
- (5) *Jagaddhara* (Between c. 1275 and 1473 A.D.⁸ quotes *Medinī* many times in his commentaries on the *Mālatīmādhava* and the *Mudrārākṣasa*. The Nepal MS of the *Vāsavadattāṭīkā* by Jagaddhara is dated A.D. 1473.
- (6) *Rāghavabhaṭṭa* (A.D. 1475-1500) quotes मेदिनीकर in his commentary on the शाकुन्तल (Vide p. 2 of M. R. Kale's Edn. 1913).

The number of works quoting *Medinī* is very large. I note below some of them to enable other scholars to note similar quotations from *Medinī* from Sanskrit and other sources :—

- (1) *Rāmacandra's* commentary on the *Ānandalaharī* (B. O. R. I. MS No. 667 of 1882-83) called पदार्थचन्द्रिका quotes मेदिनी many times.
- (2) *Lokanātha* in his commentary मनोहरा on the Bengal recension of the *Rāmāyaṇa* mentions मेदिनी, विश्वकोश, भूतिप्रयोग, विमलबोध (*Mbh* commentator) and (नारायण) सर्वज्ञ (*Mbh* Comm.)—(Vide p. 1181 of *I. O. Cata*, Pt. VI, 1899).
- (3) *Sivādāsasena*⁹ in his Comm. तत्त्वचन्द्रिका on चक्रदत्तसंग्रह (c. 1060 A.D.) quotes मेदिनीकर (Vide p. 939 of *I. O. Cata*, Pt. V, 1896).
- (4) *Harirāma* in his कातन्त्रव्याख्यासार quotes मेदिनीकर (Vide p. 200 of *I. O. Cata*, Pt. II, 1889).
- (5) *Rāmanātha Vidyāvācaspati* in his त्रिकाण्डविवेक refers to मेदिनीकर कृतकोष (Vide p. 273 of *I. O. Cata*, Pt. II, 1889).
- (6) *Haragaurīśoltra-ṭīkā* quotes मेदिनी (Vide p. 1142 of *I. O. Cata*, Vol. II by Keith).
- (7) *Lakṣmaṇabhaṭṭa* in his commentary on the *Naiṣadhiyacarita* quotes मेदिनी (Vide MS No. 716 of 1886-92 folio 10). *Lakṣmaṇabhaṭṭa's* date has been fixed by me between A.D. 1431-1730 (Vide *Calcutta Ori. Journal*, II, 309-312).
- (8) *Kāyastha Gopāla* in his Comm. on the कुमारसंभव quotes मेदिनीकर (Vide folio 29 of MS No. 678 of 1886-92). He also quotes प्रक्रिया कौमुदी of Rāmacandra (c. A.D. 1350-1400). Vide my paper on this author [in the *Annals* (B.O.R. Institute) XV, 114-116].
- (9) *Sujana* in his शब्दलिङ्गार्थचन्द्रिका mentions मेदिनी twice (Vide p. 43 of *Adyar Library Bulletin* Manuscripts Notes (February 1943—Note by H. G. Narahari). According to Mr. Narahari this lexicon is not later than A.D. 1750.
- (10) *Vidagdha Vallabhā*, Comm. on the वासवदत्ता of Subandhu (B.O.R.I. MS No. 461 of 1887-91) quotes मेदिनी or मेदिनीकर (folios 16, 11, 18, 23, 27, 30) and गीतगोविन्द of जयदेव (folios 39, 43) (Vide p. 135 of *Annals* B.O.R.I., XXI, 1940—my article on the commentators of the वासवदत्ता)

7. Vide p. 736 of *History of Dharmaśāstra*, Vol. I (1930).

8. Vide my paper on the date of Jagaddhara (pp. 71-73 of *Jour. S. V. O. Institue*, Tirupati Vol. IV).

9. *Sivādāsa Sen* was Court physician of Barbek Shah of Bengal Lane-poole gives A.D. 1459 as the date of Barbek Shah of Bengal (Vide p. 307 of *Muhammedan Dynasties*. London, 1925). Vide my paper on Khārāṇādī in *Poona Orientalist* (Vol. IV, 1959, pp. 49-62).

I may note here that a MS¹⁰ of the मेदिनी कोष in Maithili Characters in the Nepal Darbar Library is dated “ल. सं. ३७७ पौषवदि” i.e. *Lakṣmaṇa Saṁvat* 377 = A.D. 1495. This is perhaps the earliest dated MS of this lexicon.

Some of the Commentators of the *Mahābhārata* quote *Medinī* lexicon, but as the date of *Medinī* was left undetermined so far I could not make use of these quotations for Chronological purposes. I take this opportunity of noting these commentators as follows :—

(1) *Nārāyaṇa*¹¹ in his comm. निगूढपदबोधिनी quotes मेदिनी (Vide p. 7248 of *Madras Catalogue* for 1925-26 to 1927-28—1935). He mentions other Commentators of the *Mahābhārata* viz. वैशंपायन, देवस्वामि or देवबोध, विमलबोध, अर्जुनमिश्र, नारायणसर्वज्ञ, शाण्डिल्य, माधव etc.

(2) *Caturbhujaśra*¹² in his commentary on the विराटपर्वन् of the Mbh. quotes मेदिनीकर (Vide p. 188 of Mbh. *Virāṭaparvan*, ed. Bakre Gujarati Press, 1915). This quotation reads :— “वृषभः श्रेष्ठवृषयोः” इति मेदिनीकरः This quotation has been identified by me and found correct [Vide p. 144 of *Medinīkośa* (Jivananda, 1872)].

(3) *Arjunamiśra* the Bengali Commentator of the Mbh quotes *Medinī* or *Medinikara* several times in his Comm. on the विराटपर्वन् (Vide pp. 66, 69, 72, 74, 89, 95, 105, 116, 119, 142, 143, 146, 190 of Gujarati Press, Edition, 1920, Bombay).

I note here some views about the date of अर्जुनमिश्र noted by me :

(1) *Holtzmann* assigns A (= Arjunamiśra) to the 13th or 14th century (Vide p. 404 of Vol. I of *Sukthankar Memo. Edition*, 1944).

(2) *Dr. Sukthankar* notes a MS of A's Comm. on the मोक्षधर्म dated A.D. 1534.

He says that A's date must be “long prior to A.D. 1534. A mentions देवबोध, विमलबोध, शाण्डिल्य, माधव, नारायणसर्वज्ञ (Vide p. 266 of *Suk. Memo. Edn.* Vol. I).

(3) *Jogendra Chandra Ghosh* assigns A to about A.D. 1297 (Vide pp. 706 ff. of *Indian Culture*, Vol. I).

(4) In my article on A (*Indian Culture*, Vol. II, 141 ff) I assigned A to about 1474 (A.D. This date harmonises with the date A.D. 1534 of a MS of A's Comm. recorded by Dr. Sukthankar.

In view of *Medinī's* date (c. A.D. 1200-1275) now fixed by me, I think we may safely put Arjunamiśra between c. A.D. 1350 and 1500.

The foregoing data will amply illustrate the importance of the date of *Medinī* lexicon in the field of the Chronology of Sanskrit literature. I need not, therefore, record any more

10. Vide p. 79 of H. P. Sastri's *Cata of Nepal Darbar MSS*, Calcutta, 1905.

11. *Madras Cata* (1925-26 to 1927-28) p. 7247.

“ निघण्टु भाष्यनिगमनिरुक्तानि विशेषतः ।

वैशंपायनटीकादि देवस्वामिमतानि च ॥

श्रीमद्विमलबोधस्य मतं मिश्रार्जुनस्य च ।

श्री नारायणसर्वज्ञमतमालोच्य तत्त्वतः ॥

श्री महाभारतव्याख्या निगूढ (र्थ) पदबोधिनी ।

टीका विरच्यतेस्माभिरादिपर्वकमादियम् ॥”

p. 7249—

“ श्री देवबोधविमलबोधशाण्डिल्यमाधवाः ।

नारायणसर्वज्ञोऽर्जुनमिश्रस्तथैव च ॥

एतेषामतमालोच्य स्वमत्या च क्वचित् क्वचित् ।

कृता नारायणेनायं निगूढपदबोधिनी ॥”

12. गदानन्द in his Comm. on the *Virāṭaparvan* mentions चतुर्भुजमिश्र, वसन्तराय (author of भारतभूषण, विमलबोध, and अर्जुन (मिश्र) See *Cata. of Sanskrit MSS* (Vol. xvii) of Bangiya Sāhitya Parishad, Calcutta).

references to *Medinī* made by authors who definitely flourished after A.D. 1600 or so. Before closing up this paper I have to note the following views about the date of *Medinī* which are upset by the date of *Medinī* now fixed up by me :—

- (1) *Winternitz and Keith* in describing a MS of *Medinī* in the Bodleian Library, Oxford, assign *Medinīkara* to "circa 1400". (Vide p. 122 of *Cata. of Bodleian Library* Vol. II, Oxford, 1905).
- (2) *Zacharie (Indi. Wort. § 25)* cites authorities for the assignment of *Medinī* to the end of the 14th Cent. A.D. (Vide p. 169 of *Bendall's Cata. of British Museum MSS*, 1902).
- (3) Mr. Nalini Nath Das Gupta in his article on the Bengali Commentators of the *Amarakoṣa* (*Indian Culture*, October, 1935, p. 264) makes the following remarks about the date of *Medinī* :—
 "Since *Medinī*, as we know, cites in his lexicon (*Medinīkoṣa*) *Mādhava*, the author of the *Dhāturvṛtti* grammar and brother of *Sāyaṇa* (1360 A.D.) and is cited by *Padmanābhadaṭṭa* in his *Bhūriprayoga* lexicon we may without any great risk of error place him about 1375 A.D."

As we have pushed back the date of *Medinī* by about 100 years from A.D. 1375, where Mr. Das Gupta has fixed it, we must explain the reference to *Mādhava* by *Medinī*. Possibly this *Mādhava* is not the brother of *Sāyaṇa* but he is identical with *Mādhavakara* the author of *Paryāyatnamālā* (Vide p. xi of Intro. to *Kalpadrūkoṣa*, Vol. I —G. O. Series, Baroda).

If my view regarding the date of *Medinī* recorded in this paper is accepted by scholars, they will have to reject the views of KEITH, WINTERNITZ, ZACHARIE and DASGUPTA according to which *Medinī* belongs to the 14th century. I am inclined to hold the view that *Medinī* belongs to the 13th century.¹³ I shall, therefore, welcome any evidence from other scholars which either confirms this view or contradicts it, provided their evidence is of a contemporary character and hence not open to doubt or argument.

In the light of the evidence brought forth by me in this paper we have to reject the following statements of Sir R. G. Bhandarkar regarding the date of *Medinī* made by him in his *Preface* to the *Mālatīmādhava* :

- (1) "*Medinīkara*, therefore, lived after about 1375 A.D." (Vide p. xxi). I have proved in this paper that *Medinīkara* is earlier than A.D. 1275.
- (2) "Probably *Medinīkara* lived about the same time as *Mallinātha*" (Ibid).
 This is not correct as *Mallinātha* flourished about A.D. 1430 while *Medinī* is earlier than *Mallinātha* by more than 150 years. *Mallinātha* composed a work for *Devarāya II* of *Vijayanagar* (A.D. 1422-1466).
- (3) "*Medinī*, therefore, very probably lived after *Mallinātha*" (Ibid, p. XX). This statement has also been disproved by my evidence as *Medinī* is earlier than *Mallinātha* by more than 150 years.

At one place Sir R. G. Bhandarkar states that *Medinī* "lived about the same time as *Mallinātha*" while at another place he observes that *Medinī* "lived after *Mallinātha*." These contradictory statements only show the divided state of Bhandarkar's mind which then found no fulcrum of fact on the strength of which he could lift up the problem of *Medinī*'s date from the slippery ground of relative Chronology, made more slippery by the grease of groundless guesswork and absence of reliable evidence. I have dealt with Bhandarkar's view about the date of *Medinī* with a view to direct the attention of scholars to new evidence on this old problem and not out of any want of deference to this grandfather of Oriental learning on whose shoulders we stand and carry on our research with a wider vision and new tools not available to his generation.

13. In 1936 I published a paper on the Date of *Viśvalocanakoṣa* of *Śrīdharasena* in the *Karnatak Historical Review*. Vol. III, pp. 15-20. In this paper I observed as follows :—

"As *Medinī* refers to and criticizes *Viśvaparakāṣa* (A.D. 1111) and as he is quoted in the *Prṣodarādīvyṛtti* of *Padmanābhadaṭṭa* (A.D. 1375) we may not be far wrong if we assign him to the thirteenth century."

This surmise about the date of *Medinī* stands substantiated by the evidence recorded in this paper,

SOME NEW EVIDENCE FROM THE RASARATNAPRADĪPA OF RĀMARĀJA ON THE GENEALOGY OF THE TĀKĀ KINGS OF KĀṢṬHĀ (Between A.D. 1200 and 1500)

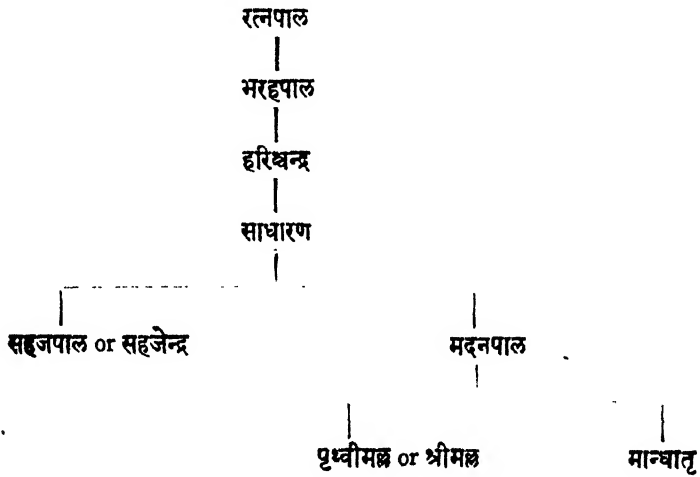
By

P. K. GODE, Poona.

Prof. P. V. Kane in his section on Madanapāla and Viśveśvarabhaṭṭa (*History of Dharmasāstra*) deals with the genealogy of Madanapāla. He observes :—

“Madanapāla belonged to the family of Tāka Kings that ruled in Kāṣṭhā (modern Kath) on the Jumna to the north of Delhi.¹ The printed *Madanapārijāta* makes the family name to be ‘Kāṣṭhā’ but this is most probably a wrong reading as in the *Mahārṇava* and other works of Madanapāla the family name is distinctly stated to be Tākā. The pedigree of the family as gathered from the *Madanapārijāta* and the other works is given below. Some works such as the *Mahārṇava* omit the mention of Sahajapāla. About Sādhāraṇa it is said that he brought about the remission of all taxes at the three *Ārthas* (Prayāga, Kāśī and Gayā).²

The pedigree as recorded by Prof. Kane is as follows :—



1. “अस्ति प्रशस्तविभवोपगतप्रशस्ति विस्तारिणी भुवि शकाधिपराजधानी । दिह्लीति विश्वविदिता नगरी-
मतल्ली पल्लीव भाति पुरतस्त्रिदिवोपि यस्याः ॥ तामुत्तरेण यमुनातटदेशनिष्ठा काष्ठेत्यभूदनुपमा नगरी गरिष्ठा ।
यस्यामनल्पविभवोपचिता बभूवुः काष्ठान्वया महितकीर्तिजुषो महीशाः ॥ —verses 4 and 5 of मदनपारि-
जात; at the end of the मदनविनोदनिघण्टु we read टाकान्वये महतिभूमिभुजां विशुद्धे काष्ठेति नाम नगरं
जयति प्रसिद्धम्—Vide Aufrecht's *Oxf. Cat.*, p. 275a (MS of मदनपारिजात where the reading is
'टाककुलाम्बुराशौ' for काष्ठकुलाम्बुराशौ of the printed text.”

2. “तीर्थत्रयीकरविमुक्तिमचीकरयः” Verse 10 of the महार्णव, D. C. MS No. 259 of 1886-92 ;
कीनाशपाशचयबद्धविमोचनार्थं तीर्थत्रयीकरविमुक्तिमचीकरयः ॥ Verse 10 of स्मृतिकौमुदी ॥

According to the evidence recorded by Prof. Kane the literary activity³ of Madanapāla "must be placed between 1360—1390 A.D." Such a patron of learning enjoyed the reputation⁴ of the Bhoja Paramāra of Dhara even in lifetime, being called अभिनवभोज. Numerous MSS⁵ of the works composed under Madana's patronage have been preserved in the different Manuscript Libraries. These works pertain to a variety of subjects such as music, dharmaśāstra, jyotiṣ and medicine.

The promotion of Sanskrit learning under the rule of Madanapāla as indicated by the works now extant makes us inquisitive about similar service to literature rendered by any of his predecessors⁶ or descendants but for this purpose it is necessary for us to know as

3. Vide Aufrecht CCI, 425—

"मदनपाल" of the Tākā race, King of Kāsthā, father of Mādhātṛ, brother of Sahajapāla, son of Hariścandra, son of Bharahapāla, son of Ratnapāla. He was patron of Viśveśvara (Madanapārijāta etc.). The following works were written in his reign but attributed to himself :— आनन्दसंजीवन, तिथिनिर्णयसार, मदनपारिजात, मदनपालविनोद, यन्त्रप्रकाश, शूद्रधर्म-बोधिनी, सिद्धान्तगर्भ (?) , स्मृतिकौमुदी, " "मदनपालविनोदनिघण्टु shorter मदनविनोद a vocabulary of materia medica, composed in 1375. and attributed to Madanapāla, IO 42. L 860. K 214. Kh. 90. B. 3.40.4.230; Bik. 647. Katm. 13 Pheh. 2. NW 588. Oudh. III, 20. XIV. 108. NP 1. 10. Quoted in *Nightinŕāja* Oxf. 323a, in *Bhāvaaprakāśa*, Oxf. 311b, in *Smṛtyarthasāgara*."

4. In fact in his commentary on the *Sūryasiddhānta* the 7th intro. verse reads as follows :—

"प्रतिदिनमुदितैर्नवैः प्रबंधैः स्मृतिसरणौ गणिते चिकित्सिते च ।

जगति विजयते विजृम्भमाणैरभिनवभोज इति प्रथा यदीया ॥"

(Vide Kane, *His. of Dharmaśāstra*, I, 387, footnote 938).

5. These may be recorded here according to works :—

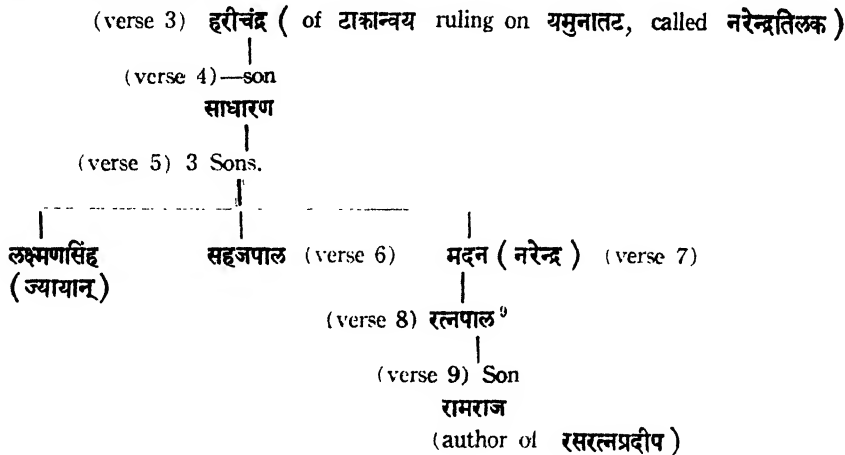
- (1) आनन्दसंजीवन—CCI, 49—"Saṃgīta, attributed to Madanapāla. Kik. 509 "on singing, music, dancing, musical instruments and the musical modes or rāgas." fol. 29—Date *Samvat 1585* = A.D. 1529.
- (2) तिथिनिर्णयसार—CC I, 231—"Quoted Oxf. 276a (compare संक्षेपतिथिनिर्णयसार by गोकुलजित् W. P. 322)—CC II, 49—"by मदनपाल Stein 90. 306 (inc.) Here मदनपाल is called "हरिश्चन्द्रपुत्र". The MS is dated *Samvat 1746* = A.D. 1690.
- (3) मदनपारिजात CC I, 125. numerous MSS—Quoted by *Khaṇḍirāya* W. p. 312, by *Mītramīśra*, Oxf. 295a, by *Raghuṇandana*, Oxf. 292a, by *Vācaspatimīśra*, Oxf. 273b (b. by Divākara in *Ācārāraka*, by Keśava in *Dvāitaparīśiṣṭa*—CC II. 97—"Stein 98", "मदनपाल—King of काष्ठा, father of पृथ्वीमल्ल (बालचिकित्सा) and मान्धातृ. The शूद्रधर्मबोधिनी does not differ from the स्मृतिकौमुदी."—CC III, 92—"As p. 216 (3 MSS) Bd. 289 (inc., CS, 2.101. 102 (inc).
- (4) मदनपालविनोद—CC I, 425 (also called मदनविनोद)
- (5) यन्त्रप्रकाश—CC I, 472—"attributed to Madanapāla, Oxf. 276a". (This work is different from यन्त्रप्रकाश and Comm. by Rāmacandra, son of Sūryadāsa, grandson of Śivadāsa—Vide CC II, 109).
- (6) शूद्रधर्मबोधिनी—CC I, 659—"Oppert II, 6477". See स्मृतिकौमुदी.
- (7) स्मृतिकौमुदी—CC I, 746—"by Madanapāla or rather Viśveśvara IO 2515 and numerous other MSS. (The IO MS is written "about 1550 A.D.") Vide also CC II, 179 and CC III, 154.
- (8) सिद्धान्तगर्भ—CC I, 718—"a work attributed to Madanapāla, Oxf. 276a".

6. The predecessors of Madanapāla according to the genealogy reconstructed by Prof. Kane are रत्नपाल, भरहपाल, हरिश्चन्द्र and साधारण. Aufrecht records no MSS of works ascribed to these predecessors. There is a work called धर्मसंग्रह composed by उपाध्याय हरिश्चन्द्र (CC I, II, p. 58) about A.D. 1850 under रामसिंह of the Jaipur dynasty (vide my article in *Poona Orientalist*, Vol. II, p. 178), but this work has nothing to do with the

complete a genealogy of the Tākā dynasty of Kāsthā as can be revealed by documentary evidence. The documentary evidence for extending the genealogy of the Tākā race further than the time of पृथ्वीमल्ल mentioned last in Prof. Kane's statement of this genealogy recorded above is fortunately forthcoming from a MS of a medical work called the रसरत्नप्रदीप (by रामराज) of which three MSS only are recorded by Aufrecht.⁷ The fourth MS of this work is mentioned by Peterson⁸ in his *Catalogue of Ulwar MSS*. The MS in Aufrecht's entry "Peters 4.40 (incl.)" = No. 1079 of 1886-92 in the Government MSS Library at the B. O. R. Institute, Poona. It has been described by Dr. Har Dutt Sharma on pp. 247-249 of his *Descriptive Cata. of Vaidyaka MSS* (B. O. R. I.—Vol. XVI, Part I, 1929). Dr. Sharma makes the following remarks about the author of the work :—

"The author seems to belong to a royal family. He calls his ancestors as reigning at Kāsthā on the banks of Yamunā. His father's name is रत्नपाल and he was in the services of his grandfather named साधारण"

Verses 1 to 9 at the beginning of the MS record the genealogy of the author which may be represented as follows :—



Tākā race. Aufrecht (CC I, 707) mentions साधारणदेव as the author of मुष्कावली on Hāla's गाथासप्तशती but this King is the son of मल्लदेव and grandson of वामनदेव and hence different from Madanapāla's father साधारण. Aufrecht does not ascribe any works to सहजपाल the brother of Madanapāla.

7. CC II, p. 116a— { रसरत्नप्रदीप med. by रामराज son of रत्नदेव }
 { Peters 4.40 (incl.); Stein 187. }

CC I, p. 496— "रसरत्नप्रदीप by रामराज—216" Aufrecht makes the following entry regarding an anonymous work on medicine called रसरत्नप्रदीप as follows :—

CC I, p. 496— रसरत्नप्रदीप —med. W. p. 300 (fa.); Katm. 13; Rādh 32, quoted* by त्रिमल्ल in योगतरङ्गिणी, in भावप्रकाश, in टोडरानन्द W. p. 289."

Under "रामराज" Aufrecht makes the following entries :—

CC I, 518— रामराज—नाडीप्रकाश, रसदीपिका Both quoted by वैद्यचिन्तामणि—रसरत्नप्रदीप"

8. Vide p. 71 and Extract 425 of *Cata.* (1892).

9. Though Dr. Sharma makes रामराज the grandson of साधारण it is not possible to accept this statement. In the first place Dr. Sharma has ignored मदननरेन्द्र mentioned

The above genealogy is very important as it adds the following names to Prof. Kane's genealogy of the Kāṣṭhā Kings of the Tākā race :—

- (1) लक्ष्मणसिंह the eldest brother of मदनपाल not mentioned by Prof. Kane.
- (2) रत्नपाल a descendant of मदनपाल
- (3) रामराज the son of रत्नपाल and author of the रसरत्नप्रदीप.

A question now arises as regards the chronology of रामराज and his father रत्नपाल. For deciding this question we have to record the following evidence :—

- (1) According to Aufrecht (CC I, 496) an anonymous medical work रसरत्नप्रदीप has been quoted in the following works :—
 - (i) *Yogataranṅinī* of Trimalla.
 - (ii) *Bhāvaprakāśa* of Bhāvamīśra (c. A.D. 1550).
 - (iii) *Ṭoḍarānanda* (between A.D. 1565 and 1589—See Kane's *History of Dh.*, Vol. 1, p. 423).

The only other medical work of the name रसरत्नप्रदीप of known authorship is that by रामराज. I am, therefore, inclined to presume that the रसरत्नप्रदीप mentioned and quoted in the three works viz. the *Yogataranṅinī*, *Bhāvaprakāśa* and the *Ṭoḍarānanda* is identical with the रसरत्नप्रदीप of रामराज belonging to the Tākā line of Kings. If this suggestion is accepted, I have to state that the chronology of Rāmarāja and his work becomes earlier than A.D. 1550 or so, when it is quoted by Bhāvamīśra in his medical compendium called the *Bhāvaprakāśa*. We have now to go backwards from A.D. 1550. For this purpose the date of the *Yogataranṅinī* of Trimalla which mentions the रसरत्नप्रदीप is important. About this date the following evidence is available :—

Prof. H. D. Velankar¹⁰ while describing a MS of Trimalla's *Dravyaguṇaśataślokī* observes as follows :—

(Trimalla quotes *Virasinhāvaloka* (1383 A.D.) in his *Yogataranṅinī* and a MS of his *Dravyaguṇaśataślokī* (Mitra, *Notices*, Vol. I, p. 109, No. 203) is dated *Samvat 1555*; i.e. A.D. 1499, Trimalla's date, therefore, falls between 1383 and 1499 A.D.)

Prof. Velankar further states :—“*Rasaratnapradīpa*, a work of Trimalla's son is quoted in the famous *Ṭoḍarānanda*. Cf. Bendall, *Brit. Mus. Sk. MSS*, p. 212.”

Bendall's statement “*Rasaratnapradīpa*, a work of Trimalla's son” is wrong. Bendall has evidently confused *Rasapradīpa* (by Trimalla's son Saṁkarabhaṭṭa) with the *Rasaratnapradīpa* quoted by Ṭoḍarānanda. Aufrecht does not mention any रसरत्नप्रदीप by Trimalla's son शंकरभट्ट but he mentions रसप्रदीप by Trimalla's son which is not a medical work but an anthology¹¹ in three chapters. I have already suggested that the रसरत्नप्रदीप quoted by Ṭoḍarānanda, *Yogataranṅinī* and *Bhāvaprakāśa* is most probably the work of Rāmarāja of the Tākā line of Kings.

in verse 7. The name of रत्नपाल in verse 8 is introduced as follows after the mention of मदन in verse 7 :— “वंशेऽथ विश्वविदिते नृपरत्नपाल । प्रादुर्बभूव etc. ”

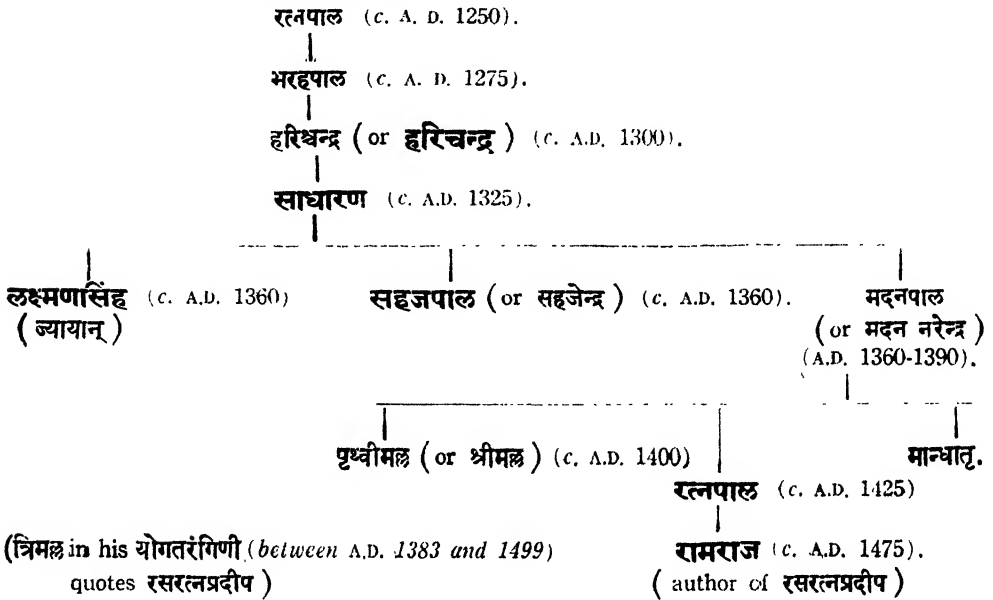
i.e. in the line of मदन and his predecessors was born रत्नपाल etc. The expression “वंशेऽथ” raises a doubt about the exact relation of मदन with रत्नपाल. I have, therefore, indicated this relation by a dotted line, leaving the question of this relationship open for further investigation. It is, however, certain that our रामराज remembered a fragment of his genealogy from हरीचन्द्र to मदन and from रत्नपाल to himself.

10. Vide p. 59 of *Cata. of BBRAS. MSS*, Vol. I (1925).

11. CC I, 495—“रसप्रदीप” an anthology in 3 Chapters by Saṁkarabhaṭṭa, son of Trimalabhaṭṭa, L. 1710.”

The reference to the **रसरत्नप्रदीप** in Trimalla's work composed between A.D. 1383 and 1499 enables us to push back the date of the **रसरत्नप्रदीप** of Rāmarāja upto about A.D. 1475, which may be regarded as the later limit for Rāmarāja, the earlier limit being A.D. 1375, the date of **मदनपाल** in whose line Rāmarāja's father **रत्नपाल** was born ("वंशेऽथ विश्वविदिते नृपरत्नपालः । प्रादुर्बभूव etc.") as stated in the MS of the **रसरत्नप्रदीप** (No. 1079 of 1886-92).

The genealogy of the Tākā Kings of Kāṣṭhā may now be consolidated as follows :—



It will be seen from the above consolidated genealogy that the name **रत्नपाल** which is the first name in the genealogy is again repeated after about 200 years. This genealogy, also shows how we have been able to extend the known genealogy of Madanapāla by about 100 years. The rule of the Tākā Kings of Kāṣṭhā for a continuous period of 300 is thus proved on documentary evidence. We must now investigate the history of this Tākā line of Kings before Ratnapāla (c. A.D. 1250) and after Rāmarāja (c. A.D. 1450) the author of the *Rasaratnapradīpa*.

BUCHANAN'S ACCOUNT OF THE MANUFACTURE OF ROSE-WATER AND OTHER PERFUMES AT PATNA IN A.D. 1811 AND ITS BEARING ON THE HISTORY OF INDIAN PERFUMERY INDUSTRY .

By

P. K. GODE, Poona.

In my paper on "Some Sanskrit verses regarding the Manufacture of Rose-water" (found in a MS of A.D. 1851) I have recorded the following facts bearing on the history of *rose* and *rose-water* in India :—

- (1) As the Sanskrit verses regarding the manufacture of *rose-water* by the process of distillation are found interpolated in a MS of A.D. 1851 by some Sanskrit Pandit we can easily suppose that the manufacture of *rose-water* from roses cultivated on Indian soil had commenced long before A.D. 1851. We must, however, investigate the exact chronology of this indigenous *rose-water* by recording earlier references to the manufacture of indigenous *rose-water* found in Sanskrit or non-Sanskrit sources.
- (2) The *Rājavayahārakośa* (c. A.D. 1650) refers to *gulāb* or *rose-water* but does not record the process of its manufacture.
- (3) The work *Kṣemakulūhala* of Kṣeṃāśarman (c. A.D. 1550) refers to a flower *goulāla* which may perhaps mean a *rose-flower*.
- (4) Bhagavantrao Yādava refers to *gulāb* or *rose* in his Marathi poem in praise of Nana Saheb Peshwa (A.D. 1721-1761).
- (5) Raja Shahu of Satara ordered in A.D. 1723 twenty bottles of *rose-water* from the British through Kanhoji Angria. This reference suggests that indigenous *rose-water* was not available to Shahu or that the imported *rose-water* was of superior quality.
- (6) In MSS dated 1787 A.D. and 1874 A.D. of a work called *Hakim Pharāsis* which is a mixture of Sanskrit, Marathi and Hindi, we find references to *gulāb* flower, *gulāb* altar and *gulkand*, all of which show the growing popularity of the *rose* in India.
- (7) The Hindi poet Bihari (A.D. 1603—1663) refers to *gulāb* in the sense of *rose-flower* and *rose-water* in his *Satasai*.
- (8) The *rose-water festival* current at the Court of the Mogul Emperor Shah Jahan (A.D. 1628—1658) suggests the use of imported *rose-water* rather than the indigenous one.

The foregoing data, though useful for an accurate history of *rose-flower* in India, does not enlighten us as to the history of the indigenous manufacture of *rose-water*. I shall, therefore, record in this paper some more data regarding this manufacture as recorded by Francis Buchanan in his *Patna-Gaya Report* (A.D. 1811—12) published by the Behar and Orissa Research Society. This data supports the Sanskrit verses¹ regarding the manufacture of *rose-water* found interpolated in a MS of A.D. 1851.

Speaking of persons by whom commerce is conducted Buchanan states in his *Patna-Gaya Report*² as follows :—

1. Vide *Poona Orientalist*, Vol. III, Nos. 1-2 pp. 1-8, 1943.

2. Published by Behar and Orissa Research Society, Patna, Vol. II, p. 689—Buchanan refers to betel-leaf-sellers as follows :—

"The *Tambulis* retail *betel-leaf* and the *lime* used for chewing, a few in shops but mostly in the streets. They are not all of the Tambuli Caste. They have as Capitals from 8 annas to 50 rupees except in Patna, where some have to the extent of 500 Rs."

Vol. II, p. 689—('The *Gandhi* deal in *rose-water*, perfumed oils and essences, tooth-powder and finer kinds of implements used for smoking. They have capitals from 100 to 1,000 Rs. The perfumes are also retailed by those who make them.")

Page 768—Buchanan mentions 8 *Distillers of rose water* and essences at Patna City and 3 *Chambeli-flower-oil-makers* at Bar.

Page 777. In Table 44 Buchanan records the exports and imports of *Perfumes* and *essences* as follows :—

Patna	Exports	Rs. 3,100	Imports	Rs. 5,300
Patna and other Divisions	Exports	Rs. 4,000	Imports	Rs. 5,950

The above figures clearly show the economic value of the perfumery trade (in A.D. 1811) of which *rose-water* was one of the items. Buchanan's remarks on the manufacture of articles of Indian perfumery are highly informative and useful for the history of this perfumery and hence may be quoted in extenso. Speaking of the "common artists" he says :—

Pages 631ff.—('Those who distil *perfumes* complain that the business is overstocked and that the prices have of late been much reduced ; but they still seem high, and no dependence can be placed on what they say, no two of them agreeing in their account ; but *they are in easy circumstances*. They use a *copper still*³ which may hold from 150 to 200 lbs. of water, and has a flat head. A tube bent at right angles conveys the vapours into a *copper cucurbit*, which serves as a recipient and is placed in a wide-mouthed earthen vessel to contain water for condensing the vapour. The whole apparatus and the place where it stands are exceedingly slovenly.

The artists make three kinds of *water*, from *roses*, from the *Pandanus* (Keara)⁴ and from the lime (*citrus*) ; but the quantity of the two latter is very trifling. The *rose water* is either *single* or *double-distilled*, the latter being drawn a second-time from *fresh roses*. These flowers are only used when fresh gathered. Even in three hours they are supposed to lose their perfume. The single-distilled *rose-water* sells, by whole-sale, at from 12 to 13 Rs. and by retail, at from 16 to 20 Rs. the *man*, which weighs about 76 lbs. Each distillation, according to some, for a *man* of water requires 22,000 *roses* and about 56 seers of water, of which 40 only are drawn off. The *double-distilled rose under* retails at 2 Rs. a seer (1 $\frac{9}{10}$ lb.), and being *only in demand among Europeans*, is not made except when commissioned. Others allege that all is distilled twice, as such alone will keep, and that what is required for common use is diluted with water when wanted.

The other waters are distilled in the same manner. All their essences consist of *sandal-wood* oil impregnated with various smells, for imbibing which, this oil has a strong capacity. The best workmen distil their own sandal-oil but some is imported. The sandal wood comes from Malabar. It is rasped, soaked three days in a little water, and the oil is found floating on the surface of water in the recipient, and distilling over into this the waters form various substances such as *roses*, the flowers of the Bel (*Jasminum Sambac W.*), spices, the roots of the *Andropogon* called Kus, the flower of the Chameli (*Jasminum grandiflorum*), that of the

3. This is the *Dolāyantra* referred to in the Sanskrit verses about *rose-water*. In these verses the *दोलयंत्र* is called *ताम्रज* (made of copper). For a picture of *Dolāyantra*, see Plate 11(10), on p. 114 of *Aryan Medical Science* by Thakore Saheb of Gondal. London 1896. The Sanskrit verses call *rose-water* "गुलाबपरमाभिधः पुष्पद्रवः". It is very cool (सुशीतल) and fragrant (सुगंध). The use of silver basin (रौप्यपात्र) and silver tray (रौप्यशराव) referred to in Sanskrit verses is absent in Buchanan's description.

4. This is the *Ketaka* or *Ketaki* plant of classical antiquity. Kālidāsa refers to it :—
"केतकैः सूचिमित्रैः (Meghadūta, 23, Raghuvarṇa, VI, 17 ; XIII, 16 ; II, 23 ("इतितमिव विधत्ते सूचिमिः केतकीनाम्") and II, 20 (flower of this plant) ; Ghaṭkarpara Kāvya 15 refers to it :—
"प्रतिभात्यथ वनानि केतकानाम्."

Mulsari (*Mimusops Elengi*), Agar wood (*Agallochum*), the flower of the Keara (*Pandanus*), the flower called Juhi (*Jasminum*) and even clay. The most common by far is the rose, and what is in almost universal use among the natives of India, as *alur of roses* is sandal-wood oil impregnated in this manner, which, according to its quality, sells at from 1 to 2 Rs. for a rupee weight while the real essential oil of roses costs 50 Rs. at Patna. The sandal oil seems to extract the whole perfume from the rose-water, as this passes into the recipient.

The next most common essence, called *Motiya* is made from Bel flower (*Jasminum Sambac*), and is cheaper than the common essence of roses. The only other essence commonly used is that impregnated with the odour of spices and called *Mujmua*. The ingredients vary from 5 to 50, but cloves, nutmegs, greater and lesser cardamoms, and saffron are the most common. It sells for from 1 to 3 rupees for a rupee weight (3 drams apothecaries weight) but is not at all agreeable to my sense of smelling, which is indeed the case with all the others. By the skill, however, of *European artists* they might perhaps be rendered useful ingredients in perfumes as they preserve the smell of various very agreeable odorous substances, which could not be readily procured in Europe, especially that of the *Pandanus* flower. The most strange of these essences is that made with the clay which communicates to oil of sandal-wood the smell, which dry clay emits, when first wetted, and which to me, is far from agreeable. It sells at 1½ rupee for each rupee weight. The best sandal oil costs here about half a rupee for the rupee weight.

The workmen of Bar, instead of a distilled oil impregnate an expressed oil with the odour of Chambeli flower (*Jasminum grandiflorum* W.). At the beginning of the flowering season they take 82 seers (about 169 lbs.) of the seed of sesamum (Til), and every fair day during the season add to one-half of it as many flowers as they can collect, which may be from one-fortieth to one-fourth of its weight; next day these old flowers are picked out and put to the other half of the seed. The season lasts about three months and the whole quantity of flowers may in that time equal the whole weight of seed; but one-half of the seed is impregnated entirely with the fresh flowers, while those given to the other half are withered, and have lost part of their strength. The seed is then squeezed in a common oil mill, and each gives 12 seers, or about 24 lbs. of oil; that impregnated by the fresh flowers being of twice as much value as what is impregnated with the withered. I am told that the 12 seers of the best kind are mixed with 96 seers of common oil of Sesamum, and the mixture here sells at half a rupee for the seer so that it brings 54 Rs. The people who make it valued it at 12 Rs. and thus made it appear that they lost by the manufacture, but they live easily,⁵ and do no other work than to pick the flowers from among the seed, and mix and retail the oil. The inferior oil at the same rate will bring 27 Rs. and the total value will be 81 Rs. The real charges are 82 seers of Sesamum seed, at 25 seers a rupee = 3 Rs. 5 as. 9 pies; 44 seers of oil of Sesamum, 12 Rs. 12 annas; 2 mans of flowers, 12 Rs.; expressing the oil 8 annas; total 19 Rs. 9 as 9 pies.; profit 61 Rs. 6 as. 3 pies.

Those who express oils from various seeds (Teli) use the same mill exactly that is used in the districts hitherto surveyed.

Buchanan's survey of Perfumery industry as recorded in the foregoing extracts shows European interest in Indian perfumery at the time of the British advent in India. As a result of this very interest India lost her world markets and "European nations began seriously entering the domain of perfumes also. A time came when France and Germany captured all the markets for their aromatics and to-day we find India, the cradle of Perfume Industry as one of the biggest consumers of foreign perfumes. While Europe made rapid

5. Vide Dr. Sadgopal's article on *Kewda* in "Soap, Perfumery and Cosmetics, May 1937. The *Kewda* or *Pandanus Odoratissimus* L. Occurs in India, Arabia and Persia. In India it occurs in Bengal, South India, Central India, United Provinces and North-West Burma. The superior type of *Kewda* is found in Ganjam Dist. of Orissa.

6. This remark reminds me of the following stanza of the *Pañcatantra* about the lucrative character of perfumery trade:—

“पण्यानां गान्धिकं पण्यं किमन्यैः काश्चनानिभिः ।

तत्रैकेन च यत्कीतं तत् शतेन प्रदीयते ॥”

advance with the help of modern scientific knowledge, India lost even that much which it treasured so successfully for centuries past.”

It appears from Buchanan's account of the distillation of Rose-water in A.D. 1811-12 at Patna that owners of big gardens were cultivating the rose at this centre with a view to supply the necessary rose-flowers for manufacturing *rose-water* and *attar of roses* as well. We must now trace the account of this manufacture by Indian perfumers earlier than A.D. 1800 and find out the exact chronology of the rose-water manufacture as started by Indians. As there can be no distillation of flower perfumes without flower-gardens Buchanan has taken care to record his notes on these flower-gardens, in which *rose* was prominently cultivated as will be seen from the following extract :—

Pages 518-519 (Vol. II)--Flower Gardens.

“Flower gardens for ornament are not quite so much neglected as in Bhagalpur. Raja Mitrajit, two or three other Zemindars, and many merchants of Patna have such ; but they are far from being neat, or from containing a great variety of plants. The only garden worth notice is one belonging to Baidyanath Babu, a banker of Patna. In the whole of both districts there may be 200. The *garland makers* especially near Gaya, raise a considerable quantity of flowers for sale : but they study very little to make their garlands ornamental. They make them of whatever flower is reared most easily at the season, so that they have little or no variety. During the cold season when I travelled through the district, no flower almost was in use, except that of the *Tagetes erecta*. Those who extract essences have several flower gardens at Patna and Bar. At the former between two and three hundred persons have *rose-gardens* containing from two to ten Kathas each that is from $\frac{1}{15}$ to $\frac{1}{3}$ of an acre. The *rose* which is cultivated in these gardens is said to have originally come from *Busorah*, and at Patna is called by that name ; but in Bengal it is called the *Patna rose*. It does not seem to differ materially from the common *red rose* of European gardens (*Rosa gallica*). It is propagated by *cuttings* in the rainy season. The cuttings are planted in a bed until they take root and are then placed three or four together, in one hole, the holes being from two to three cubits distant. Every two or three years the bushes are pruned. They flower from the middle of February to the middle of May and must be watered in the dry season. The flowers which are rather smaller than those in Europe, sell to the distillers at from 1000 to 4000 to the rupee. They are allowed to expand fully before they are sold. At Bar those who make essences use almost entirely the *Chambeli*, which botanists call *Jasminum grandiflorum*. I have very strong doubts whether it can be considered as a different species from the common jasmine of Europe.

Most of the gardens belong to the persons who make the oil. These pretend to be losers by the concern so that little dependence can be placed on what they said as *they live very easily* and perform no kind of manual labour. They alleged that all the gardens amount to 25 bigahs or about 17 acres ; but others alleged twice that extent. I could procure no estimate of the value or the quantity of the produce of a bigah on which the least dependence could be placed.

The gardens are managed much like those of the *rose* tree but the plant does not require pruning. It is not supported, as it grows more erect than in Europe. It produces its flower in the rainy season. A great many officinal plants are reared in the gardens near Patna but I shall here pass them over as I have done those which grow spontaneously because I could say nothing on the subject but what being entirely scientific, would be altogether unintelligible except to the botanist and physician.”

7. Vide Dr. Sadgopal's article in *Indian Soap Journal* (July-Sept. 1943) on “An up-to-date survey of Indian Perfumery Industry”. I note some points from this interesting article :

(1) Big centres of perfumery industry sprang up at Kanauj, Jaunpur, and Ghazipur, a mention of which is made in *Shah Nama* of Firdousi (c. A.D. 1030).

(2) Some of the old houses of perfumery at Kanauj are even to-day masters of millions and billions.

(3) Avicenna, the Arabian physician was well versed in the art of making perfumes. When Sultan Saladin made his triumphant entry the walls of the mosque of Omar were washed with *rose-water* brought from the East,

The above account of the growing number of flower-gardens in Bihar and in particular of the rose-gardens which supplied rose-flowers for the distillation of rose-water is highly instructive and interesting. We may now link it up with the account of the cultivation of roses as described in a Hindi work "*Bāg Vilās*"⁸ composed by the Court-poet Śiva Kavi, patronized by Maharaja Daulatrao Scindia of Gwalior (A.D. 1780—1827). Daulatrao was a ruler of high æsthetic tastes. He was a great lover of gardens and gardening and laid out the famous *Phool Bag* of Gwalior. Śiva Kavi composed this treatise to please Daulatrao. In this treatise he refers to the *four types of roses* and many other varieties of fruit and flower trees worth planting in a model garden. About roses this poet says :—

—“ जल दे आश्विनमासमें, पुनि सुन लेइ जवाब ।
 पूस मास मे कलम कर, सींचो सरस गुलाब ॥
 आवे कली गुलाब में, तबको-सुनो विधान ।
 कृष्णपक्ष भरि माघ में, नीर न दीजै जान ॥ ”
 —“ पैबन्द सरस गुलाब को, अस सेवती सुजान ।
 बहुरो सदा गुलाब को, जिर एक अभिराम ॥ ”

Both Daulatrao Scindia and his Court-poet Śiva Kavi were contemporaries of Francis Buchanan and hence their interest in gardens and cultivation of roses at Gwalior c. A.D. 1800 is contemporaneous with the cultivation of rose-gardens at Patna so graphically described by Buchanan in A.D. 1811-1812. As I have not read the *Bāg Vilās* of Śiva Kavi I cannot say if this treatise contains any reference to the manufacture of rose-water at Gwalior c. A.D. 1800.

STUDIES IN THE HISTORY OF INDIAN COSMETICS AND PERFUMERY—A CRITICAL ANALYSIS OF A RARE MANUSCRIPT OF GANDHAVĀDA AND ITS MARATHI COMMENTARY (Between c. A.D. 1350 and 1550)

By

P. K. GODE, Poona.

In a paper contributed by me to the *Journal of the Bombay University*,¹ I have given a critical analysis of a rare treatise on the science of cosmetics and perfumery represented by a single MS in the Raḍḍi Collection of the Bhandarkar O. R. Institute, Poona. This work is called the *Gandhasāra* by Gaṅgādhara. In the same bundle in which I discovered the *Gandhasāra* there is another work written in the same hand called the *Gandhavāda* with a Marathi commentary. Folios 1 to 27a comprise the *Gandhasāra*, while folios 27b to 49 comprise the *Gandhavāda* with commentary. After the Colophon of the *Gandhasāra* the MS of the *Gandhavāda* begins as follows :—

Folio 27b— “ वरनलिनवदनमिलिता, जलजदनलदसहिता,
 मदमदनलगरुविहिता, मधुतगरकरजमृदिता,
 करालविबोधिता, निशाकरसंयुता ॥ लतावसंतसेविता भुजंगविजृम्भिता ॥

8. Vide article on "*Bāg Vilās*" of Śiv Kavi by Subedar B. R. Bhalerao of Gwalior (off-print kindly supplied by the author).

1. For September 1945 issue.

॥ हरये नमः ॥ गंधवाटु ॥

नखपलव भागपल गंधं कृष्णागरपलं ।
 नख द्विपलकं चैव द्विपलं जाति कोसकं ॥
 मांसी शैलजतालीस उशीरशतपत्रकं ॥ १ ॥
 चंपाजलद लोबान गंधलासटि पुनकं ।
 पृथक्कयलमितं भागं बकं द्रवणपाचितं ॥ २ ॥
 सरूवाचांबरं चैव पृथक्द्वादशशोणकं ।
 त्वगेला च लवंगं च कोष्ठं चेत् शदशाणकं ॥ ३ ॥
 त्रिवारं वल्लपूतं च नखं च घृतपाचितं ।
 पुष्पावासं सुवासं च केतक्यादलपंचकं ॥ ४ ॥
 ॥ मन्मथोदयपिष्टकं ॥

टीका ॥ श्रीखंड पलें २० । अगह पलें ६ । नख पलें २ । जायपत्री पलें २ । मांसी पल १ । सैलज पल १ । तालीसपत्र पल १ । वाल पल १ । भोल श्री टांक १२ । पांवि टांक १२ । अंबसा टांक १२ । तज टांक १२ । येला टांक १२ । लवंग टांक ६ । कोष्ठ टांक ६ । नख टांक ६ ।

तुपें तलौनि ताबेट होति येतुके दलता घालिजे । तेणें तुपें मोजयिजे आंढि काढितां घालिजे ॥ फुलांचा वासु दीजे ॥ उत्तम वासु होय ॥ राज्या योग्य देव योग्य बुका होए ॥ अति उत्तमु होए ॥ श्रीगंध उगालुनि घालिजे ॥ हा महासुगंध होए ॥

मांसी बकुल सेवती लवंगाग्रनिशा पृथक् ।
 अष्टभागं न्यसेचान्ये गांठिनखश्च सैलजं ॥
 दवणा मरु ब्रह्मी च सेलारस पृथक् चतुः ।
 कर्चुरः चंपकलिका पृथक् द्वादशभागिकं ॥
 विंशति भद्रमुस्ता च पत्रपुंनागकोष्ठयोः ।
 पृथभागिकं योन्यं निशा ज्याज्या पलं पलं ॥
 पलाद्ध खर्णव गेरुश्च त्रिवारं वल्लगालितं ।
 नख घृतपाच्यं च पश्चात्सिलारसस्तका ॥
 पुष्पवासं न्यसेद्रात्रौ राजयोग्यं च पित्तहा ।
 वशीकरण सर्वास्त्रिजनवस्य मनोहरं ॥

टीका ॥ मांसी पलें ८ । बकुल म्हणता भोलसरिफुल पलें ८ । सेवती पलें ८ । लवंगा पलें ८ । आंबे हलदि पलें ८ । गांठिवना पलें ८ । मरुवा पलें ४ । नख पलें ४ । सेलज पलें ४ । दवना पलें ४ । ब्रह्मी पलें ४ । सेलारस पलें ४ । कर्पूर पलें १२ । चांपेकलि पलें १२ । भद्रमुस्ता पलें २० । पत्रक पलें २ । पुनावे पलें २ । कोष्ठ पलें २ । हालदि पल १ । जाईफल पल १ । गेरू पल १० । नख तुपें तलौनि घालिजे ॥ वल्लगालित । तीनि वेलकिजे ॥ मग सेलारसाची भावना दीजे ॥ फुलाचा वासु दीजे ॥ राजवस्य स्त्रीवस्य जनवस्य मनरंज बुका सर्वपित्तहरी ॥ २ ॥

Folio 31— ॥ अथ कस्तुरीपरीक्षा ॥

— ॥ कस्तुरीची करणी ॥

Folio 32— ॥ पुनरपि कस्तुरी करणी ॥

Folio 32b— ॥ अथ कर्पूर करणी ॥

— ॥ अथ जवादिची करणी ॥

Folio 33b— “काचेल तेल”

“तैल्यं चांबरकाचरी च महुला लोबान श्रीखंडकं । मांसी चागरकं” etc.

Folio 31a— “दूसरा काच मेलवणी ”

Folio 35b— “ केवडे फुलाचा वासु दीजे । उत्तम बुका होये । ”

Folios 36-37—Recipes for several varieties of बुका

Folio 37— “ सुगंध तैल ”

Folio 38— “ भोजराज कृत वादि ”

Folio 39— ॥ अथ गंधराज ॥

Folio 40b— ॥ या नाव भूपालवल्लभ ॥

Folio 41a— “ ॥ या नाव राजमनोहर ॥ मानिनीमानभंजन-गंधराज । होये । ”

Folio 41b— “ या गंधराज नाव कंदर्पकोलाहल ॥ ३ ॥ ”

—“ या गंधराज नाव कामिनीमोहन ”

Folio 42a— “ या नाव मदनकामेश्वर ”

—“ या नाव जनांकुस । रामाप्राणहर ॥ ७ ॥ ”

—(“ सर्वे जनांकुशो नाम कामिनीप्राणवल्लभाः ”)

Folio 42b— “ या नाव कंदर्पसेखर ”

Folio 43a— “ हा गंधराज इन्द्रेनिमिला (“ तैल देवेन्द्रनिर्मित ”)

Then follow some more recipes for गंधराज, each ending with a certificate “ उत्तम गंधराज होये ” or “ गंधराज चोखट ”

Folio 45b— “ अथ धूपाची करणी ”

—“ राजयोग्य धूप ”

Folio 46a— “ अनंगसुंदर (धूप) नाम इदं निर्मिल ”

—“ या धूपा नाव कोलाहल ”

Folio 47— “ या नाव कुमारधूप ”

—“ दिव्यवर्ति ” (“ उत्तमवातिया होति ”)

—“ या नाव सुंदरवर्ति ”

—“ या नाव भूपालवल्लभवडि ”

Folio 47b— “ अथ उदबति ”

Folio 48— “ अथ उदमेलवणी ”

—“ सुगंध तैल ”

—“ काचा तेल ”

Folio 49— “ ॥ इति बुका गंधराज आणि तेलिया गालिया तथा सुगंध तथा काचिया तेल तथा कस्तुरीची परीक्षा व करणी व जवादिची करणी तथा कर्पूरकरणी तथा धूपकरणी गोलिया तथा उदबति यितुक मेलावा परिपूर्ण जाला असे ॥ ॥ इति गंधवादसंपूर्ण ॥ ”

Folio 49a—

बुका	बुका	कस्तुरीकरणी	बुका	बुका
• बुका	बुका	मृगनाभिकस्तुरी	बुका	बुका
बुका	बुका	भास्कर चोखट	बुका	बुका
बुका	बुका	जवादि	बुका	बुका
बुका	बुका	जवादि	बुका	बुका
बुका	अथ	काचेतेल	बुका	बुका
	कस्तुरीकरणी	काचतैल	बुका	बुका
		बुका		बुका

Folio 49b—

बुका	जवाति	गंधराज	गंधराज	धूप	गंधराज
बुका	सुगंध	”	”	उदबति	”
बुका	गंधराज	”	”	टटिया	”
बुका	”	”	धूप	उदबति	”
इति सुगंधतैलं	”	”	”	”	”
सुगंध जवादि शुद्ध	”	”	”	धूप	उदबति
जवादि	”	”	”	सुगंध	”
जवादि	”	”	”	”	गालिया
”	”	”	”	गंधराज	भाषा गंधवादानुक्रमणिका
मदनकामेश्वर	”	”	”	”	समाप्ता

The MS containing these two treatises viz. (1) the *Gandhasāra* and the *Gandhavāda* with *Bhāṣā* commentary appears to be about 200 years old, judging by the condition of the paper on which it is written and also its script. The questions about the authorship and chronology of these two treatises may now be discussed as follows :

(1) Is it possible to suppose that the treatise *Gandhavāda* is also the work of Gaṅgādhara, the author of the *Gandhasāra*?

There is no definite evidence to answer this question in the positive or negative.

(2) Who is the author of the *Bhāṣā* or Marathi commentary on the *Gandhavāda* in Sanskrit?

This question also cannot be answered definitely though it is possible to suppose that the author of the *Gandhavāda* himself composed the Marathi commentary on his own work.

(3) What is the chronology of both these works and the *Bhāṣā* commentary?

All these three texts are certainly more than 200 years old. This inference based on the condition of the manuscript and its script finds corroboration from the old Marathi language of the commentary. At any rate the form of the Marathi language of the commentary will provide us some criterion to fix its chronology approximately. I note below some words and expressions from the commentary to enable scholars to fix its chronology :—

—थेला (Sans Criterion एला) (27)

—तूपें तलौनि (27)

—घालिजे, कीजे (33)

—वाधु दीजे (27) भावना दीजे (fol. 28), किजे (29)

घालविजे (32)

—राजे ठाकुर (34)

—उतरलिया मेलविजे (34)

—दारविनी (35), दारुविनी (36)

—चोखट (35)

—खोबरें जुनें (38)

—हार्ते मर्दौनि पाणी सांडिजे (40)

—खदिराचा डीकु (42)

—ऊद मेलवणी (48)

—होए, होये (28)

—जाए(30)

—भिजों दीजे (33)

—रसें वाटिजे (33)

—गंधराज (43)

—तिलेल (45)

—तेणें भिजौनु कडै घालुनु (46)

—चोखट (46)

—वातिया होति (47)

—चूर्ण करुन खलिजे (47)

—सिलारसु मधु पाण्यें कालविजे (47)

Judging by the above forms of the Marathi language of the commentary I may tentatively assign this commentary to the latter half of the 15th century or the middle of the 16th century A.D.

The Marathi commentary is useful linguistically because it gives us the vernacular equivalents for some of the Sanskrit terms in the text of the *Gandhavāda*. In the MS of

the *Gandhasāra* some tables of aromatic materials are recorded on some folios. I cannot say if these tables form part of the text of the *Gandhasāra* of Gaṅgādhara. I reproduce these tables below as they contain both Sanskrit and vernacular terms :—

Folio 7a—

सूक्ष्मैला	लवंग	चंदन	सौफ	मोथ
तज	कूट	एलावालुक	जायिफल	चंद्रत्वक्
जायिपत्री	वालाक	कुंकुम	नागकेसर	पुष्प कंकोल
हिरडे	रोहिस	धणिया	लवंगत्वक्	स्थूलैला
पत्रक	नीली	चोरपुष्पी	रेणुक	पद्मक

Folio 9b—

पंचक	कूट	नली	एकांगी	तगर
शैलज	मुरा	मुस्ता	चोरपुष्पी	मांसी
बाल	उशीर	तेजवती	नागकेसर	बोल
कर्चूर	लताकस्तूरी	विहाणी	कर्पूर	प्रियंगु
सौफ	मदन	रोहिस	मरुव	पत्रक

Folio 11a—

मांसी	हिरडे	नागकेसर	गडिवन	स्थैलेला
पत्रक	मुरा	कूट	मुस्ता	वालक
शटी	तज	एकांगी	पद्मक	सिह्वा
सौफ	रेणुक	तगर	लगस	त्विचपत्र
उशीर	विहाण	नख	एलावालु	चंपक

Folio 11b—

प्रियंगु	हरीतकी	शटी	लवंग
शौफ	नागकेसर	उशीर	स्थूलैल
सूक्ष्मैला	मरीचकंकोल	कूट	जाइपत्री

Folio 12a—

चंदन	जाइप त्री	कंकोल	लवंगत्वक्	जाइफले
पद्मक	कूट	सिह्वा	तज	नख
खद्यस	मुरा	इंद्रत्वक्	हिरडे	एला
कुंकुम	एलावालुक	लवंग	नागकेसर	अगुरु
गाडिवन	बोल	कर्पूर	शटी	मांसी

Folio 16a—

अगरु	चंदन	देवदारु	सुरभी	सिंहा	मांसी	मुरा
वालक	कूट	मुस्ता	राल	लक्षा	गुग्गुलु	श्रीवरस
वाल	कुंदुरु	सल्लकी	शैलज	कुंकुम	नागकेसर	हिरडे
गंठीवना	वचा	मरीचकंकोल	जातीकोष	जाइफल	पद्मक	स्थूलैला
तालिस	तमाल	शटी	नख	सूक्ष्मैल	खदास	कर्कट
लवंग	सरेस	दमन	मरुव	अशोक	महासुगंध	चंद्रत्वक्
	सोफ	गंधमुस्त	प्रियंगु	लावत्वक्	एलावालुक	पन्नज

Folio 20b—

कोष्ठ १	मुरा ६२	पद्मक १०	सारिवा ४४	मोथ ५	हिरडे ५०	चोर २३	पत्रक ४२
लोध १८	केसर ४७	कचूर ४	एकांगी ६३	वाला २२	खजुरको ४३	अगरु ६	लता ५१
उशीर ६१	वर्णेलतो १७	प्रियंगु ६४	तगर ३	एलावालुक ४४	मांसी २१	बले ५२	बोलु ७
सूक्ष्मैला १५	कंकोल ६०	घणिया २९	सौफ २६	श्रीवास ९	कुंदुरु ५६	गुग्गुलु	सालै ४०
गंधमुस्ता २२	जाइपत्री ३५	लवंग १६	चत्रत्वक् ५७	राल २८	नखी २७	नख १०	देवदारु ५२
लवंगत्वक् ५९	जाइफल १४	पुष्पकंकोल ३२	रोहिस ३०	दमन ५५	अशोकी १२॥	मरुवा ३९	वचा २६
बोल ३४	रेणुक ३०	तज ५८	सूक्ष्मैला १३	सरसी ३८	लाक्षी ३७	तमालपत्र ५४	सुरभी ११
तेजवती ६१	नली २	महामोघ ४५	चंपक २०	व्याघ्रनखी ४९	शेखर ८	सूल ४१	त्वक्पत्री २१

Folio 27a—

वर्ति:	पद्मा	पर्वत	पुत्री	देवी
गौरी	युक्ता	सज्जन	रक्ता	विद्धा
चंद्रा	कांता	भीषण	केशी	चंडा
विद्धा	प्रोक्ता	वल्लभा	सक्ता	शुद्धा

The foregoing tables with the exception of the last one are perhaps intended to help the actual manufacture of perfumes. They give at a glance the several aromatic ingredients and their suggested combinations. The elaborate table on folio 20b specifies the proportions of these ingredients. It is for the Indian manufacturers of perfumes to understand their exact significance and compare these proportions with those now in practice.

I now close this paper by noting below the names of materials mentioned in the Marathi commentary on the *Gandhavāda* :—

- Folio 27*— श्रीखंड, अगरु, नख, जायपत्री, मांसी, सैलज, तालीसपत्र, बाल, भोल, पाचि, अंबर, तज, येला, लवंग, कोष्ठ, तूप, फुलांचा वासु, बुका, श्रीगंध.
- Folio 28*— बकुल, सरिफुल, सेवंती, आंबेहलदि, गांठिवना, मरुवा, सेलज, दवना, ब्रह्मी, सेलारस, कर्पूर, चांपेकलि, भद्रमुस्ता, पत्रक, पुनावे, हालदि, जाइफल, गेरु, कर्पूर, जटामांसी, बाबरी, तगर, ताली, छलिरा, दवणा, चंपा, पुनाव, चंदन, कर्पूर, आडिं, गांठीवना, गहुला, चौपे, मुस्ता, अंबर, लोबान, तज, तेलिया, बेरी, बाबरि, कस्तुरी, जवादि.
- Folio 29*— “पुती म्हणता आडिं”, “नत म्हणता गांठीवना”, गहुले, भोलसरी, कालावाला, पुनावा, “त्वचा म्हणता छलिरा”, “चंडा म्हणता छड”, मुर्ति म्हणता टांक”
“तुटि म्हणता येला”, कांचरी, कबाब, नलिका, कचोरी, कृष्णागरु, “पलास्या म्हणति तेलिया”, “पुति म्हणता आडिं”, तड, तगर, भोल, लोबान, देवदारु, पत्रज, गुह्या,
- Folio 30*— “पैतिक म्हणता अगरु”, तेल्या, “धूघ्र म्हणता लोबान”, पाचि, बकुलपुष्प, पुनाग, छलीरा, एला, कालावाला, बोल, चंदनयेलिया, तवक्षी, कोसुं, “आगुढपुष्प म्हणता दवना”, निवेल, तवक्षीर, आडिं, सेवंतिफुल, “हा बुका सिघणे² निफजविला”
- Folio 31*— दवणा, कोष्ठ, चापा, कचूर, भोलसरी, चांपेकलि, “नत म्हणता तगर”, “गोध्रा म्हणता गहुले”, कांचरी, “नाभिकोश म्हणता कस्तुरीचे खोलडे”, मांकेरु, रातांजन, जायपल, कंकोल, पिंपलीमूल, पीठवनि, पोइस.
- Folio 32*— अजामूत्र, बेलाचामो, कस्तुरीकोसले, देवदारु, चोपडा, कुंकुमकेसर, महिषीमूत्र, शुद्धमृगी, मोचरसु, गोरोचन, कटुकी, केवडे काथ, मोचरसु, तुप, मधु, “चुना सेर”, लोबान, राल, (“हातें रगडिजे”), शुद्धसिलारसु, कंदकर्पूर, “राजांन तांडुलचा भातु रांधिजे,” “केलिपत्र आथुरुनि वरि ढालिजे । माउतें केलिपत्रें दडपिजे । दाबण बहुत घालिजे” — “उदयभास्कर”
- Folio 33*— गुह्या, चोपडा, मेण राठी स्वेत, सोमलु पीवाला, चूना, फटकी, केतकी दलें, जवादि, मस्तकि, जवादिची आडिं, मेणतेल, शुद्धबीज,
- Folio 34*— सतपत्र, जायल, करबाल, जवदाणा, गंधराज, तिलेल, मालतिपुष्प, “काचकुपिये ठेविजे”, काचेलतेल, शुद्धतैल, शुंठि, गुग्गुलु, धणे, जीरें.

2. “This *Bukā* powder) owes its origin to सिघण”, who is possibly the Yādava king *Singhana* (A.D. 1210-1247). The reference to सिघण is also found in the text of *Ganāha-vāda* which reads— “यो बुका सिघणे निपायो राजवस्य करु मे हुगवायो” Evidently both the text of the *Gandhavāda* and its *Marathi Commentary* are later than A.D. 1300 or so. In the *Rasamketakalikā* of Kāyastha Cāmuṇḍa (A.D. 1475-1509) a physician called भैरवानन्द is said to have administered कन्यादरस to King सिंहण:-

“सिंहणक्षोणिपालाय भूरिभोज्यप्रिये रसम् ।

दत्तवान् भैरवानन्दो भूयो ग्रामाष्टकं ददौ ॥”

(Vide my paper on the “*Dates of the Works of Kāyastha Cāmuṇḍa*”, *Poona Orientalist*, Vol. V, pp. 6-15). *Singhana* collected many physicians round him. A सिघणग्रणी called माधव composed an inscription for this King—Vide p. 75 of *Sources of Medieval History of Deccan*, Vol. I (1930) by G. H. KHARE.

- Folio 35—* भोलश्री, तजनलक, मरीच, कंकोल, पत्रज, कापूर, (“ चोखट बुका होये ”), दारचिनी, छलिरा, कचूर, चांपेलफुल, भद्रमोथ, चंदनसेन, छली, छिलारसु, जवमाषरमे.
- Folio 36—* भोलसरी, आंबेहलदि, लवंगकाडी, कोसूं, मोथ, कबाबा, बंबर, गुहावा, तवक्षिर, चांपा, अखोट, तेल्या, बोलश्री, चंदनपापडा.
- Folio 37—* चंदनथेपली, लोबानु, तवक्षिर, करंबाल, जवदाणा.
- Folio 38—* हिरडे, लाखभेट, राकाली, गुलु, “ कांबलेनि गाळुनि घेइजे ” — “ भोजराजकृतवादि ”, नवनीत खोलडे, खोबरें जुनें, मोचरसु, सद्यपृत, मधु, चूना, कालीराल, जवादिसुद्ध, पोयिसराति.
- Folio 39—* “ काचपात्रि धारिजे ”, मेण चोखट, जुनें खोबरें, “ सूक् म्हणता लाख ”, चपैकली,
- Folio 40—* “ तोंडी वेलणी झांपणी दीजे ॥ वेलणी सिछिद्र ॥ ”, “ मोहर बरवी कीजे ”, “ लोखंडाची आडणी ”, “ रानसेणी तथा कोलिसे भरिजे ”, काचपात्रि, सद्यत्प, धूप, “ म्लक्ष म्हणता सिलारस ” “ चोल्या म्हणता लोबान ”, पातालयंत्रें काढिजे, “ अरण्यतुलसी म्हणता बाबरी, “ पीतगंध म्हणता अगरु ”, “ उल्विण म्हणता लोबानु ” — “ वसंत कुसुमाकर ”.
- Folio 41—* “ सिसंक ”, “ पीत म्हणा अगरु ”, “ तिलज म्हणता तेल ”.
- Folio 42—* सांब्राणी, कचुर, हिरडा, सिसंपा, नलिकातज, खदिराचा डिकु, “ मृगीचर्म म्हणता खोलडे ” सैल, “ क्रिमिज म्हणता लाख ”, हलदि, जाईमोगरा, तेल्य.
- Folio 43—* ब्रह्मी, साखर, बबेरी, देवदारु चोपडा, जायपत्री, सहात, सीसैकाठी, खोलडे, भाजणी, तेल्या, लवंगकाडी, पद्मक, सिरिस, छलिरा, सीसामा, चोपडा, नाबात, मेणराटी.
- Folio 44—* सहात, घीउतेल, हिरडेदालि, सांब्रायणी, छलीरा, सीस, हरडा, गोंद, पुल, हलदी, “ देवदारु सेर दीडु १॥० ”, गुलु, साखर, केवडा, चांपेल.
- Folio 45—* चंदनगाभा, “ नालकायंत्रें अथवा पातालयंत्रें चढवावे ”, देवदारु चोपडा, जाइचें फुल, घृत, भाजणी चोखट, सुरडी जुनिं, जजी, नाबात, “ ब्रह्मी तोले २ ”, “ नागकाकिडी-चिया रसा ”
- Folio 46—* “ हेम म्हणता अगरु ”, क्रिमिजंतु म्हणता लाख ”, पत्रज, घलीर.
- Folio 47—* हिंगुल, काख, काथ, त्यतु, खैराचा डीकु, “ चणे प्रमाणें वटी कीजे ”, मोथ.
- Folio 48—* चानीकस्तुची, धायफुल, येलावालुक, प्रियंगु, जायपत्री, रेणुकें, पद्मक, काकडसिंगी, दुगलभा, कमलफुल, दफते आणि कलाख, मंजीठ, लोध, चासनीखि कस्तुरी, कापूर-वाला, केसर, येरंडी मगज, धणिये, करंबालु, जीरा, दवणा, नागकेसर, पाचि.

The foregoing analysis of the Marathi commentary reveals in detail the variety of aromatic and other materials that were used in Medieval India for the manufacture of cosmetics and perfumery. Additional points furnished by this analysis are the following : -

(1) Sanskrit and other terms and their equivalents are recorded as follows : -

“ हेम म्हणता अगरु ”, “ क्रिमिजंतु म्हणता लाख ”.

(2) Bhojarāja mentioned on folio 38 in the expression “ भोजराजकृतवादि ” is evidently King Bhoja of Dhara (c. A.D. 1050).

- (3) *Singhaya* referred to on folio 30 as the originator of a बुका powder is possibly identical with the Yādava King सिंहण (A.D. 1210—1247).
- (4) It appears that glass-vessels were used in connection with the manufacture of perfumery. काचकुपि or glass bottle is mentioned on folio 34. काचपात्र or a glass vessel is referred to on folios 39 and 40.
- (5) A piece of woolen blanket was used as a strainer (“कांबलेनि गालुनि घेइजे—” Folio 38).
- (6) As regards the पातालयंत्र (Folios 40 and 45) and the नालकायंत्र (Folio 45) referred to in the commentary please see Plate IV (21 and 22) in the *Short History of Aryan Medical Science*, by Thakore Saheb of Gondal, London, 1896.
- (7) There are references to Cinnamon as दारुचिनी (Folio 35) and दारुचिनी (Folio 36). *Hobson-Jobson* (by Yule and Burnell, 1903) states that *Darcheenee* is a Persian word meaning *China-stick*. It records usages of *dar-chini*, dated A.D. 1563 and 1621.
- (8) There are references to the word “खोबरें” in the commentary (vide Folio 38-- “खोबरें जुने”) meaning “the dried kernel of the cocoanut” which is called in English *Coprah* (vide *Hobson-Jobson*, pp. 253-254 where we get dated usages of the word like—*Copra* (A.D. 1563, 1578); *Chopra* (A.D. 1584), etc.).

In view of the data recorded above I am inclined to fix the date of the *Gandhavāda* and its Marathi commentary between A.D. 1350 and 1550 tentatively. This date is consistent with the reference to King Singhaya (A.D. 1210-1247) and the old forms of the Marathi language, not to say the present condition of the MS and its script. I hope that the students of historical linguistics and the students of the history of Perfumery industry of medieval India will fully exploit the rich contents of these new sources for their study viz: the (1) *Gandhasāra* of Gaṅgādhara and the (2) *Gandhavāda* with Marathi commentary.

MISCELLANEA

TEN AVATARAS (INCARNATIONS) & DARWIN'S THEORY OF EVOLUTION

The theory of Incarnation of God-Soul is recorded in one form or another in the scriptures of all the civilized nations of Ancient times. Aryans, Egyptians, Babylonians, Assyrians, Hebrews, Greeks and Chinese. Even the Savages of Africa, America and Australia hold similar beliefs. The best preserved, and perfectly deciphered Theory of such Incarnations is the Aryan Theory of Ten Avatars Matsya, Kurma, Varaha, Narasimha, Vamana, Parasurama, Rama, Krishna, Buddha, and Kalki, embodied in the following verse (Shloka) **मत्स्यः कूर्मोवराहश्च नरसिंहोथ वामनः ॥**

रामो रामश्च कृष्णश्च बुद्धः कल्किश्च च ते दश ॥

Owing to the heavy layers of subsequent misinterpretations and dross gathered round this and similar other theories, the Scholars and Scientists of the modern Civilization class them as Mythology, too low, in their opinion, for consideration in their Quest for True Knowledge. So it becomes the sacred duty of a research worker of the Scriptures to clear the dross and misinterpretations from such Theories, and convince the Scholars and Scientists, that they are marvellous facts of Science recorded by the Scientists of the Ancient Civilizations.

Scientific Chronology lays down as under, regarding the beginning or duration of our World. Lord Kelvin deduced twenty million years as the time during which it (World) has existed, but this period is too short to be accepted by geologists as the age of the Earth. The discovery of Radio-active substances brought a new factor into consideration, and it has been lately estimated that as the abode of life (Lord Rayleigh, Brit. Assocn. 1921) a moderate multiple of one thousand million years is the possible and probable duration of the Earth's crust. (Whittekar's Almanac 1926).

Against these assertions, the Aryan Scriptures exactly calculate the duration of the World at 432 million years, known as "Kalpa" (Kalpa : Being a period of 432 million years of the mortals and measuring the duration of the World. Apte's Sans. Eng. Dict. p. 343.)

Darwin's Theory of the Origin of the Species and of Evolution of Life by natural selection, survival of the fittest, and developments according to the needs of the environment, is now accepted by all. This Theory proved that Life began in water, from something like a self dividing Amoeba, and reached Its *first stage* in various kinds of Fishes. Then in *second stage* It developed into animals who can live in water as well as on land, such as crabs, *Tortoises*, Alligators etc. In Its *third stage*. It left off all connection with water, and developed into four footed animals of the forest such as Deer, *Boars*, Ass, Horse etc. In Its *fourth stage* It developed into animals trying to walk erect on two feet, such as Kangaroos, Bears, Monkeys etc. In Its *fifth stage*, It developed into Ape-Man. After this physical development into Manform, the physical evolution became secondary, and Mental or Brain development became primary, for advancement of Life, as will be seen from the following three quotations :—1. *Pithecanthropus erectus* (Erect Ape-Man) Remains of a skull and thigh bone were found in 1891 and 1892 by Professor Dubois, at Trinil, Java. These are held to be remains of a creature of Pleistocene times, about midway between the Orangutan and Man in development (Whittekar's Almanac 1940 p. 218)" 2. *Sinanthropus Pekinensis* (Peking Man) A skull found at Choukoutien, 40 miles south west of Peking, China, (Dec. 2, 1929) is ascribed to the same period as the Java type, but the brain development is greater than in the Trinil skull and the brain case much thinner than that of the Piltdown skull. (Whittekar's Almanac 1940, p. 218)" 3. "If we take the general average of this class of skulls, as compared with modern skulls, we find them of smaller brain capacity, thicker and flatter, with prominent frontal sinuses, receding foreheads, projecting muzzles, and weaker chins. The brain is decidedly smaller, the average being 1150, cubic centimetres as compared with 1250, in Australians, and Bushmen, and 1600 in well developed Europeans. (Human Origins. Chap. X p. 131. By Samuel Laing.) Thus

by gradual Evolution from lower to higher complexity in body and brain, the Human Life on this world has reached the present day stage of development in invention, Art, Science, Philosophy etc.

The Sanskrit word "Avatara" is derived from the verb "Avatru" meaning to cross over." So in its simple form "Avatara" means crossing over from one stage to another. According to Aryan scriptures Vishnu or God-soul (Life?) first manifested in water in Fish-form. (Matsya). i.e. Life living in water only. Then it crosses over to its second higher stage in Tortoise form. (Kurma) i.e. Life which can live in water as well as on land. Then it crosses over to a third higher stage in Boarform (Varaha) i.e. fourfooted Life living on land and in forest. Then it crosses over to a fourth higher stage in Narasinha form (Narasinha) i.e. half animal and half Man. Then it crosses over to a fifth higher stage in Vamanaform (Vamana) i.e. full human development, but low and stunted like an Ape-Man. After reaching the Human Form, the mental complexity and brain development becomes primary, and Life crosses over to a sixth higher stage in Parasurama Avatara, showing perfect physical Evolution, but the mental qualities of animal ferocity, revenge, killing etc. crudely manifested. Then Life crosses over to a seventh higher stage in Rama Avatara, showing advanced mental and moral qualities of forbearance, religious zeal, higher sense of duty etc. Then Life crosses over to an eighth higher stage in Krishna Avatara, showing a further advancement and complexity in mental and moral qualities, and development of Political life and strife, various Inventions, Scientific advancement, and higher type of Art and Philosophy. Then Life crosses over to a ninth higher stage in Buddha Avatara, showing the highest Philosophy ever reached and preached. We may safely call the epoch in which we live, as the Buddha stage in advancement of Life on this world. The future tenth higher stage of Evolution of Life is also visualised as the Zenith of Human development which will culminate in Kalki Avatara.

The Theory of Evolution also proves how the transformation of Life living in *water*, into Life living in *water as well as on land* came about, i.e. how crossing over from one stage to another took place. Fish living in sea are carried by tides on shore and are often exposed for some time without water, till the next wave again takes them in. Some fish die, they have no developed organs to inhale Oxygen from the air, as they have to take oxygen from the water. But some fish are sturdy enough to exist during this period of distress, till the next wave takes them in. Gradually such sturdy fish and their progeny, who live near the shores are accustomed to survive for intervals between waves without water. Then it happens that such fish are often left in shallow pools of water after the tide recedes, and such pools would hour by hour get dry, when the period and amount of distress of the fish, thus left, increases till the next day, when the tide comes again and takes them in. Among these fish who are sturdy enough to survive during the period of distress, and their progeny, necessary organs are gradually developed so that they can exist without water. (Outline of History Chapt. 1, By H. G. Wells) Thus the period of distress, survival of the fittest, and development according to the needs of environment lead Life to higher and higher manifestations.

Now the Avatara Theory also definitely asserts that :—

“विष्णुर्देव दशपतारगहने जिप्तौ महासंकटे ॥ Bh. 3. 95.”

“Vishnu (God-Soul or Life) crosses over to ten painful higher Avatars in time of great distress.”

This simple commonsense comparison is quite sufficient to convince the Scholars and Scientists that the Theory of Evolution of Life was known and declared forcibly by the Ancient Aryan Scientists, thousands of years before Charles Darwin expounded it, and the later Scientists accepted it. Darwin stops after reaching Human Formations, while the Avatara Theory goes further, and deals with the Evolution of Human Beings right up to the modern stage of physical and mental evolution.

Bhayawadar House.

Chittal. (Kathiawad.)

Dated. 27-5-1944.

ANAKCHANDRA

NEW LIGHT ON THE EARLY HISTORY OF CHANDRAGUPTA MAURYA

The glorious career of Chandragupta Maurya both as a liberator of India from the yoke of the Greeks or as the first great emperor or empire-builder of this country has produced such a deep impression upon the minds of the Indian people, that they have transported him to the land of legend and romance. Every section of the Indians Brāhmanas, Buddhists and Jains--have preserved traditions of the great emperor, which though varying in outward details centre round an inner nucleus of historical truth. Some such traditions are also collected in a Persian text, *Maymal-ut-Tawarikh*, a portion of which has been translated into English, of course from M. Reinand's French rendering, by Sir H. M. Elliot in the first volume of his "History of India as told by her own historians." This portion is based on a Sanskrit text, which in the opinion of M. Reinand, was composed about the commencement of the Christian era, certainly long before the appearance of *Rājatarangini* and even of the *Mahābhārata*.

It follows therefore that the work contains genuine historical traditions at least of the Mauryan period which was removed from the author only by three centuries. However, in the text before us traditions and legends of different periods and varied contents have been indiscriminately pieced together so as to form a continuous narrative of facts. Yet the *Tawarikh* contains some brilliant suggestions which tend to illumine many a dark page of Indian History. The episode of Rāma Gupta of the dynasty and the usurpation of his throne by Chandra Gupta II Vikramāditya is recorded in full details in this treatise. Here we are concerned with a remark, hitherto unnoticed, which seems to refer to Chandragupta Maurya.

The *Tawarikh* says that "in the country of Said there were three kings until at length all the territory of the Hindus came under the authority of King *Kafaud*, after he had by his valour subdued them. A Brāhmaṇa had blessed him and said that the whole sovereignty should devolve upon him."

To me it appears that 'Kafaud' is a contracted Persian transcription of the word 'Chandragupta' and the following circumstances lead me to identify him with the famous founder of the Maurya dynasty :

(1) Kafaud, as noted above, is said to have been 'blessed by a Brahman' who predicted that the whole of sovereignty would devolve upon him. We know for certain that Chandragupta won the throne of Magadha under the guidance and inspiration of the great Brahman diplomat, Viṣṇugupta Chāṇakya.²

(2) The *Tawarikh* emphasizes the outlandish nature of Chandragupta : "this Kafaud was not a Hindu."³ Justin also describes the lowly origin of Chandragupta and the *Mudrārākṣasa* and the commentary on the *Viṣṇu Purāṇa* call him "Vṛiṣala." Though according to Dr H. C. Seth this title signifies no lowly origin and is simply a Sanskritized form of the Greek word 'Basilius' and though Buddhist works describe his descent from the morigaṇas of pipphalivana, who in the *Mahāparinibbāna sutta* figure as the claimants of a share from the ashes of the Buddha being his Kshatriya Kinsmen, the fact cannot be doubted that Chandragupta was beyond the pale of orthodox Hindu society.

1. Elliot and Dawson : *History of India* I, p. 108.

2. See *Viṣṇupurāṇa* (IV. 24) : कंठिन्य एव चन्द्रगुप्तं राज्येऽभिषेक्ष्यति; Kamandaka's *Nitisāra* (Intro.) एकाहीमेवराज्यं यश्चक्षते शक्तिधरोऽयम् । आजहार नृचन्द्राय चन्द्रगुप्ताय मेदिनीम् ॥, Hemachandra's *Parīṣiṣṭa Parvan* (VIII, 376) चक्रे समर्थमर्थेन तेन मौर्यं चरित्रप्रसूः । धिया निधिरमात्यो हि कामधेनुमर्हभुजा ॥, *Mudrārākṣasa* (Act II) अस्ति तावत्..... चाणक्यमति परिगृहीतैश्चन्द्रगुप्तपर्वतेश्वरबलैरुदयिभिरिव समन्तात्परं कुमुदपुष्पम् ।, *Mahāvamsa* (V, 16-17) "Then there came the famous Maurya King Chandragupta whom the great choleric Brahman Chāṇakya, after killing the 9th Nanda sovereign Dhana Nanda, anointed to the sovereignty of entire Jambudvīpa" (my translation) etc.

3. Ibid p. 108.

4. Ind. Hist. Quart. (1941).

(3) Kafaud is described in the Tawarikh as a contemporary of Alexander the Great. Plutarch also avers that "Androcottos himself, who was then but a youth saw Alexander himself." The contemporaneity of Alexander and Chandragupta Maurya is too established a fact to require any detailed treatment.

(4) The Tawarikh goes on : "he (Kafaud) had visions of which he asked the interpretation from a Brahmana".⁶ The fact that Chandragupta emerged from a lowly origin and was encouraged to the sovereignty of India by some supernatural omens is also borne out by Justin. "When he (Sandrocottos)," he remarks, "lay down overcome with fatigue and had fallen into a deep sleep a lion of enormous size approaching the slumberer licked with its tongue the sweat which oozed profusely from his body and when he awoke quietly took his departure. It was this prodigy which first inspired him with the hope of winning the throne."⁷

(5) The Tawarikh credits Kafaud with the establishment of the first All-India Empire. Chandragupta Maurya is also on all hands accepted as the first historical emperor who welded the states of India in a central imperial organization.

These considerations vouch for the identification of Kafaud, mentioned on the Tawarikh with Chandragupta Maurya. Taking our stand on this identification we proceed to summarize the new information we get of this sovereign from the Persian Text.

Chandragupta was a born leader of men. He appealed to the sensibility of the masses not through his illustrious lineage or imposing ancestry but through his outstanding geniality and national sentiment. "Through his kindly disposition and equity all became obedient to him." "He made fine speeches" and with his fiery eloquence fired the imagination of the masses and stirred their national and religious sentiments. Like all the Parvenu aspirants of political power he upheld the cause of virtue, which as he must have stressed, was in abeyance partly on account of the domination of the Greek foreigners and partly due to the greed and exploitation of the Nandas. As the Tawarikh says, "he raised their hopes by his virtues and realized them by his deeds." The Kautiliya Arthaśāstra says that the King was to address the armies thus : तुल्य वेतनोऽस्मि भवद्भिः सह भोग्यभिर्द राज्यं, मयामिहितः परोऽभि- हन्तव्यः ; वेदेष्वप्यनुश्रूयते समाप्त दक्षिणानां—यज्ञानामवश्वतेषु सा ते गतिर्या शूरस्य

(P. 367 Shāmasāstriji's edition).

We have noticed above the remark of Plutarch that Chandragupta met Alexander in the Punjab. Evidently his motive was to secure the assistance of Alexander for the conquest of Magadha. Plutarch himself hints at this when he says that Chandragupta used to declare that Alexander could easily have taken possession of the whole country since the King (Nanda) was hated and despised by his subjects for the wickedness of his disposition and meanness of his origin."⁸ "From this passage," writes Dr. H. C. Raychaudhury, "it is not unreasonable to infer that Chandragupta visited Alexander with the intention of inducing the conqueror to put an end to the rule of the tyrant of Magadha."⁹ In thus seeking the alliance of Alexander Chandragupta must not only have given the allurements of an easy conquest but also persuaded him with proper gifts and a definite treaty of collaboration. Here the Tawarikh provides a very valuable piece of information : "He (Chandragupta or Kafaud) sought peace with Alexander to whom he sent his daughter a skilful physician, a philosopher and a glass vase."¹⁰ The meaning of this statement becomes apparent when we recall Alexander's liking for Indian physicians and philosophers. His invitation of Dandamis, through Onesicritus and the latter's vigorous reply is evidence in point. Likewise he appointed Indian physicians in his camp. As for the matrimonial alliance, it was part of his scheme for

5. MacCrindle : Invasion of India by Alexander the Great (p. 311).

6. Elliot and Dowson : History of India Vol. I, (p. 108).

7. MacCrindle : op. cit. (p. 328).

8. Elliot and Dawson : op. cit. p. 108.

9. MacCrindle : op. cit. p. 311.

10. Political History of Ancient India, p. 218.

11. Elliot and Dawson, op. cit., p. 108.

hellenising the East as is proved by his marriage with Roxānā and the common feasts instituted by him in Persia. Later on Seleucus also concluded a marital alliance with Chandragupta. In fact such alliances, according to the diplomatic morality of the day, were the best credentials of a lasting friendship. The gift of the glass vase must have been an appeal directed to the artistic taste of Alexander. Thus in the selection of the presents Chandragupta betrayed the same perspicacity that he showed in winning the hearts of the people and binding them in a common cause of nationality. Alexander did heed these advances but the reports of the military strength of the Nandas were so appalling as to break the morale of the Greek forces and to constrain them to retrace their steps. Chandragupta had to crush his enemy with his own resources.

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BUDDHAPRAKASH B.A.

REVIEWS

Catalogue of the Anup Sanskrit Library by Dr. C. Kunhan Raja and K. Madhava Krishna Sarma, M.D.L., published by the Government of Bikaner, Bikaner, 1944. Pages 100; size $8\frac{1}{4}'' \times 10\frac{1}{2}''$.

The 10th of April 1939 was a red-letter day in the history of the Anup Sanskrit Library of Bikaner. It was on this day that the Prime Minister of the Bikaner State threw open the doors of this Library to the public for research work and further resolved to start a serial publication with a liberal grant from the State. It was also a lucky moment when Major K. M. Panikkar, the then Minister of Education (now Prime Minister) invited Dr. C. K. Raja of the University of Madras to pay a visit to Bikaner and prepare a complete catalogue of the MSS in this Library. The catalogue before us is the first fruit of this visit and every lover of Sanskrit learning will join us in our congratulations to the Govt. of Bikaner, Major Panikkar, Dr. Raja and Mr. K. M. K. Sarma who have cooperated ably in bringing out this catalogue.

The Catalogue of this Library prepared by Peterson in 1880 was not complete. It noticed only about 1700 MSS. The Catalogue, now completed and the 1st Fasciculus of which is presented to us, is quite comprehensive and accurate. It is not a descriptive catalogue but a classified list giving all relevant details in columns. About this list Dr. Raja observes :—"In the case of most of the manuscripts more details than this are not required and so it is not proposed to prepare a descriptive catalogue for the entire collection. The description given in the classified list is quite enough. In the case of the rare manuscripts where further descriptions are required, a supplementary volume containing such detailed descriptions will be prepared and issued after the list is completed."

The Catalogue was planned by Dr. Raja but the work of executing this plan and seeing it through the press has been carried out by Mr. Sarma, the Curator of the Anup Sanskrit Library. Mr. Sharma was appointed Curator towards the end of 1941 and it is highly creditable to him that he should complete this work so expeditiously and accurately in such a short time.

The present first fasciculous comprises 100 pages containing a list of 1340 MSS of which 833 pertain to *Veda*, 128 are *Srauta* MSS, 53 are *Gṛhya* MSS, 84 are *Itihāsa* MSS, 277 are *Purāṇa* MSS and 15 are *Gītā* MSS. Many of these MSS were copied during the reign of Maharaja Śrī Anup Singh, whose name the Library bears.

The present Catalogue is one of the *Publications of the Anup Sanskrit Library* patronized by H. H. the Maharaja of Bikaner. These publications were projected under three classes (i) *Catalogues*; (ii) *The Ganga Oriental Series*, and (iii) *The Sadul Oriental Series—Rajasthanī and Hindī*. Out of the projected works the following have so far been published :—

(1) *Catalogue of the Sanskrit MSS in the Anup Sanskrit Library* represented by the 1st Fasciculus under review, (2) *Anūpasīmhaguṇāvatāra*, (3) *Akabarāsāhiṣṅgāradaṛpaṇa*.

Mr. Sarma, the Curator of the Library, is the General Editor of the *Ganga Oriental Series*. The Editorial Board for the *Sadul Oriental Series* consists of the Director of Education, Bikaner, Dr. Dasharatha Sarma and Prof. N. D. Swami. We wish all success to this literary activity at Bikaner under the direct patronage of H. H. the Maharaja of Bikaner. In promoting this activity His Highness has been redeeming by instalments the debt he owes to his illustrious ancestor Maharaja Śrī Anūpasimha, to whose love for the learned and their learning we owe a deep debt of gratitude. The only way of discharging this debt is the publication of some of the rare works collected by this devotee of Sarasvati during his life-time and preserved with care by the successive Maharajas of Bikaner upto the present day.

P. K. GODE.

Rtusamhāram (Aryan Culture Series, Vol. 2) with commentaries of Maṇi Rāma and Amarakīrti Sūri, Edited by Prof. Sita Ram Sehgal, M.A., M.O.L.; published by the author, D 2930, Kucha Balmata, Lahore, pp. xxvii+90; size 6½" × 9¾". Price Rs. 10; Shillings 10.

It is a happy sign of the times that Textual Criticism has come to stay among Sanskritists in India. It would be a red-letter day in the history of Indology when all our classics are critically edited by Indians themselves. The present critical edition of the *Rtusamhāra*, the authorship of which is ascribed to Kālidāsa, is the most delightful poem to read as it contains a rich aroma of ancient Indian culture, the fragrance of which has already been wafted over centuries of Indian literary and cultural life. The lay reader of this poem is entitled to have a critical edition of this poem from his learned brother and Prof. Sehgal has spared no pains to give us good critical edition within the limits of his material viz. six printed texts and one MS from the Government MSS Library at the B. O. R. Institute, Poona, with Amarakīrti's commentary. The commentary of Maṇi Rāma published in the edition is complete while that of Amarakīrti is incomplete. The editor tells us that he has followed Maṇi Rāma in editing the Text, though in some places he has been forced to adopt other variants. Besides the variants noted in the foot-notes we find along with them occasionally recorded some parallel descriptions in the *Rāmāyaṇa* and classical Sanskrit literature. The four indices compiled by Mrs. Sehgal and given at the end will be found very useful. The first contains a season-wise list of all interpolated verses. The second gives the alphabetically arranged *Pāda-Index* of all the verses. The third is a *word-index* of the whole text. The fourth is an alphabetical index of the names of flowers, plants and trees occurring in the poem. Besides these indices the editor has recorded a short *Bibliography* of publications used by the author in the present edition.

In his critical Introduction Prof. Sehgal surveys the *Seasons* and their number in the Vedic literature. He then takes this survey down to the classical literature. This survey makes delightful reading as it links up the description of seasons in the *Rtusamhāra* with those given by other eminent poets and thus gives a historical and cultural perspective to the poem. Prof. Sehgal next compares the account of Seasons in this poem with that given in the several passages of the *Rāmāyaṇa* and concludes that the "*Rtusamhāra* could not have been written without the direct inspiration of the *Rāmāyaṇa* and that its author must have been a devout reader of the *Ādi Kāvya* so as to imitate its description and language in his own work." This theory of the indebtedness of the *Rtusamhāra* to the *Rāmāyaṇa* appears quite plausible in view of the great influence of this epic on subsequent literature. The Introduction is concluded by the editor with a few remarks on Amarakīrti, the Jain author of the commentary published in the present edition. Prof. Sehgal assigns Amarakīrti to a period "between the middle of the 16th and beginning of the 17th century". Amarakīrti commenting on *Rtusamhāra* I, 28 and II, 28 mentions King Bhoja कवि-जगज्जदति; कविभोजगज्जदने) as the patron of the author of the *Rtusamhāra*. Prof. Sehgal states that this reference shows that Kālidāsa, the so-called author of the *Rtusamhāra* was not the same Kālidāsa as the celebrated author of the *Sākuntala* but another who flourished in the age of King Bhoja. We agree with Prof. Sehgal that this statement, though not absolutely reliable, provides suffi-

cient ground to assume that the negative side has a tradition as early as the time of Amarakīrti.

We congratulate Prof. Sehgal, the Editor of this excellent critical edition of the *Rtusamhāra*, and Prof. Sadhu Ram, the Editor of the *Aryan Culture Series* for their co-operation in bringing out this Volume in spite of all difficulties consequent upon war conditions. The scholar must work in war or peace. The warrior can rest on his sword but not the pen-man.

We await with eagerness the *Index Verborum to the Works of Kālidāsa* promised by Prof. Sehgal on p. xxvii of his Introduction.

P. K. GODE.

Juridical Studies in Ancient Indian Law by Dr. Ludwik Sternbach, Ph.D., University Lwow, Cracow (Poland), Hono. Professor of Ancient Indian Culture, Bhāratiya Vidyā Bhavan, Bombay.

At the outbreak of the present world war Dr. Sternbach escaped from Poland and succeeded in reaching India. While in Poland he had carried out his Juridical Studies in Ancient Indian Law and fortunately for Indology he managed to bring with him his collected notes pertaining to these Studies. It is highly creditable to Dr. Sternbach that he stuck to these studies in spite of the difficulties consequent upon his dislocation from his mother country and temporary stay in India. Verily he has followed in his present life the message of our ancient Rsis :—

“स्वाध्यायान् मा प्रमद The studies before us are the fruit of this *Svādhyāya* and though published in several Oriental journals they pertain to one main subject, viz. the juristic study of Ancient Indian Law. These studies are as follows :—

1. Reciprocal Responsibility for Debts contracted by Married people (*Annals B. O. R. Institute*, Vol. XXIV, 1944, pp. 115-174).
2. Legal Relations between Employers and Employees in Ancient India (*Poona Orientalist*, Vol. VIII, 1944, pp. 1-34).
3. The Rākṣasa-Vivāha and the Pāṣāṇa-vivāha (*New Indian Antiquary*, Vol. VI, 1943, pp. 182-185).
4. The Āsura-vivāha and the Ārṣa-vivāha (*Poona Orientalist*, Vol. IX, 1944, pp. 1-57).
5. *Veśyā* (Synonyms and Aphorisms)—*Bhāratiya Vidya*, Vol. IV and *Bhāratiya Vidya Miscellany*, 1945—72 pages.
6. Legal Responsibility of Physicians in Ancient India for their carelessness in Medical Treatment (*New Indian Antiquary*, Vol. VII, 1944, pp. 101-105).
7. Pledge (*Bhāratiya Vidya*, Vol. VI, pp. 157-164).

All these studies are fully documented and contain a rich mine of carefully selected materials pertaining to the different aspects of Ancient Indian Law. Dr. Sternbach's monograph on *Veśyā* will be very useful to the students of historical linguistics and also to the students of the history of Indian Culture. No other language in the world than Sanskrit, says Dr. Sternbach, contains more synonyms or possesses more beautiful aphorisms about *Veśyā*.—We congratulate Dr. Sternbach on his perseverance in continuing his studies in spite of the hardships caused by his exile and trust that beforelong he would be able to join his compatriots in his homeland to enable him to resume all his intellectual activities as before.

P. K. GODE.

